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National Energy Board



Office national de l'énergie

annual report 2003

TO PARLIAMENT

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14 March 2004

The Honourable R. John Efford, P.C., M.P. Minister of Natural Resources 580 Booth Street, 21st Floor Ottawa, Ontario K1A 0E4

Dear Minister:

I am pleased to submit the Annual Report of the National Energy Board for the year ending 31 December 2003, in accordance with the provisions of Section 133 of the *National Energy Board Act*, R.S.C. 1985, c. N-7.

Yours truly,

Kenneth W. Vollman

Chairman

APR 28 2004



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Our Purpose

We promote safety, environmental protection, and economic efficiency in the Canadian public interest within the mandate set by Parliament in the regulation of pipelines, energy development and trade.

Our Vision

To be a respected leader in safety, environmental and economic regulation.

Our Goals

NEB-regulated facilities and activities are safe and perceived to be safe.

NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected.

Canadians derive the benefits of economic efficiency.

The NEB fulfills its mandate with the benefit of effective public engagement.

The NEB is effective in leading its people and managing its resources.

Chairman's Letter

Canadians have long relied on the Western Canada Sedimentary Basin (WCSB) as their primary source of conventional crude oil and natural gas. However, conventional crude oil production from the WCSB has been declining for some time, and natural gas production has been flattening out over the last two to three years. In the face of declining conventional supply, producers are increasingly turning to the development of non-traditional sources of supply. For natural gas, this includes supplies from the North and the East Coast offshore, as well as the development of coalbed methane supply sources in the WCSB and importing liquefied natural gas (LNG). For crude oil, this means expanding production from the East Coast offshore and from Alberta's oil sands deposits. The development of non-traditional sources of supply will result in proposals for the development of new



LNG facilities and for the construction of new gas and oil pipelines. The Board was active in 2003 in developing a co-operative regulatory framework for the first such application, the proposed Mackenzie Valley Pipeline.

On the electricity side, Canadian demand for electricity has been growing moderately, while generating capacity has increased more slowly. Many of the recent regulatory projects reviewed by the NEB have been geared toward increasing imports. The 14 August 2003 power outage in the U.S. and Ontario underscored the importance of a reliable electricity transmission system. The Board was a participant in the joint U.S. - Canada Power System Outage Task Force established to investigate the causes of the blackout and how to reduce the possibility of future outages.

Canadians experienced higher energy commodity prices in 2003. Prices of transportation fuels responded to high world oil prices, while volatile and higher prices in the North American natural gas market resulted from a tightening supply situation in North America, where declining domestic supply put pressure on prices at times of high demand. Electricity prices, which are still largely regulated in Canada, increased only marginally, on average.

As a result of the move to more diverse supply sources, Canadians face increasingly complex and difficult choices in the energy sector, as they confront conflicting goals, values and aspirations. This complexity of choice was demonstrated during 2003 in several hearings, that drew a large number of participants and took many months to complete. The Board was also asked to facilitate discussions or adjudicate on matters involving several billions of dollars in transportation tolls. In addition, the Board sought and participated in several opportunities to partner and coordinate with a growing number of departments and organizations at all levels of government involved in regulating the energy sector.

It is expected that the degree of complexity of choices facing Canadians, and therefore the Board's number and scope of challenges and opportunities, will continue to increase in years to come. The NEB therefore sees its role in Canada as providing a stable, clear and transparent



regulatory framework for these energy choices to be made in the public interest.

Much of what the NEB has done to respond to these complexities can be encompassed within the "smart regulation" approach introduced in the September 2002 Speech from the Throne. For the NEB, smart regulation is the umbrella for many of our initiatives. These include focusing on outcomes, for example through goal-oriented regulation, creating regulatory clarity, and providing information on energy markets.

The Board's path toward goal-oriented regulation began with the *Onshore Pipeline Regulations* in 1999, followed by the *Processing Plant Regulations* in 2003. Three further sets of regulations are in various stages of preparation and will be promulgated over the next few years.

Regulatory clarity was a key theme during 2003. During the year, the NEB undertook a major review of its *Guidelines for Filing Requirements 1995* (GFR). The *NEB Filing Manual*, which will replace the GFR, is expected to be published in the spring of 2004. The NEB also developed guidelines for pre-application meetings to facilitate communication between Board staff and outside parties where appropriate. Another initiative was the development of the Appropriate Dispute Resolution program. The Board believes that more effective and expanded use of appropriate dispute resolution techniques can enhance competitiveness of energy markets and deliver significant benefits in terms of certainty, preservation of relationships, confidentiality, flexibility and savings in both cost and time.

To fulfill our energy market monitoring role, the NEB informs Canadians about energy trends and issues and engages the public in discussions about Canada's energy outlook. *Canada's Energy Future: Scenarios for Supply and Demand to 2025* is the NEB's most recent long-term energy outlook and was published in July 2003. The Board also issued three energy market assessment (EMA) reports in 2003, related to electricity exports and imports, the Maritimes natural gas market and short-term natural gas deliverability from the WCSB. In April 2003, we published the first of what will become an annual performance report on the safety of the companies we regulate. *Focus on Safety - A Comparative Analysis of Pipeline Safety Performance* is aimed at providing a clear understanding of the safety performance of the NEB-regulated oil and gas pipeline industry.

I believe that the National Energy Board remains well-positioned to carry out its role in the development of Canada's energy industry, provide expertise and services, and to adapt to any future changes. I believe that the results shown in this report demonstrate our commitment to achieve our goals and fulfill our mandate, as we will continue to do in the public interest of all Canadians.

Our Role and Responsibilities

ABOUT THE NEB

The National Energy Board (NEB or Board) is an independent federal agency that regulates several aspects of Canada's energy industry. The NEB was established in 1959 and reports to Parliament through the Minister of Natural Resources. The main responsibilities of the NEB are found in the *National Energy Board Act* (NEB Act) and include regulating the construction and operation of pipelines that cross international or provincial borders, international power lines and designated interprovincial power lines, and aspects of international trade in natural gas, oil and electricity.

The NEB regulates approximately 45,000 kilometres of pipelines across Canada (Figures 1 and 2). These include large diameter high-pressure natural gas pipelines, crude oil and oil products pipelines, shorter small-diameter pipelines, and one carbon dioxide pipeline. In 2003, gross export revenues from natural gas, petroleum, and electricity were nearly \$62 billion² and Canada's energy trade surplus (the value of energy exports minus value of energy imports) was \$36 billion. Annual toll revenue for major pipelines regulated by the Board under tolls and tariffs³ was nearly \$3.5 billion for gas pipelines and \$838 million for oil pipelines in 2003.

Another key role is to regulate natural gas imports and exports, and oil and electricity exports. The Board has additional regulatory responsibilities under the *Canada Oil and Gas Operations Act* (COGO Act) and under certain provisions of the *Canada Petroleum Resources Act* (CPR Act) for oil and gas exploration and activities on frontier⁴ lands, particularly in Canada's north and certain offshore areas (Figure 3). The Board also has specific responsibilities under the *Northern Pipeline Act* and the *Energy Administration Act*.

The NEB is a court of record and has the powers of a superior court with regard to compelling attendance at hearings, the examination of witnesses under oath, the production and inspection of documents, and the enforcement of its orders. The NEB Act provides for up to nine permanent Board Members, who are assisted by staff including financial analysts,

The NEB's corporate purpose is to promote safety. environmental protection and economic efficiency in the Canadian public interest' within the mandate set by Parliament in the regulation of pipelines, energy development and trade.

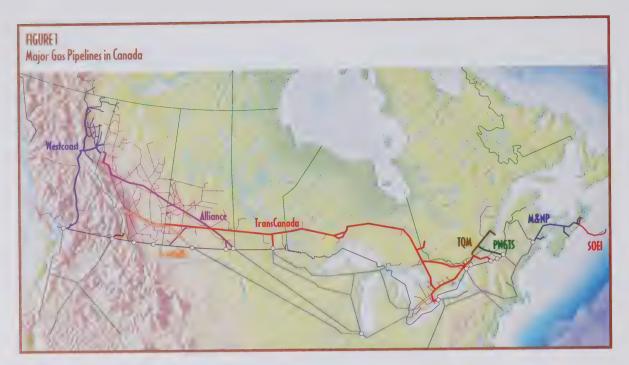
The NEB's vision is to be a respected leader in safety, environmental and economic regulation.

¹ The public interest is inclusive of all Canadians and refers to a balance of economic, environmental, and social interests that changes as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.

² Canadian currency is used unless otherwise specified.

³ The amount charged by pipeline companies for transporting energy and the conditions under which they provide service.

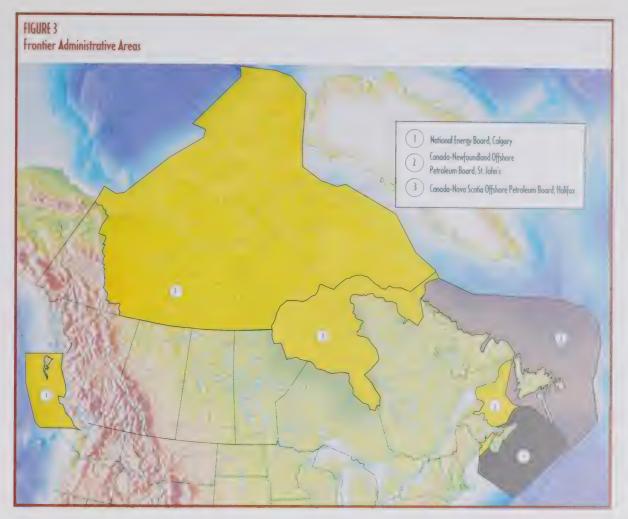
⁴ Those lands in the North and in offshore areas that are not subject to a federal 'provincial shared management agreement.





environmental specialists, economists, engineers, geologists, geophysicists, and lawyers, among others. Public hearings are typically conducted by three Board Members, who constitute a quorum of the Board, with one acting as the Presiding Member. The Board's regulatory decisions and the reasons for them are issued as public documents. In making its regulatory decisions, the Board must balance all of the competing interests, while having a view as to what is in the overall public interest.

To determine whether a project should proceed, the Board considers, among other things, the project's economic, technical and financial feasibility, and its potential environmental and



socio-economic impacts. Under the NEB Act, the NEB has a mandate for environmental protection as a component of the public interest. The NEB also has environmental responsibilities under the *Canadian Environmental Assessment Act* (CEA Act) and the *Mackenzie Valley Resources Management Act*. In addition, Board inspectors are appointed Health and Safety Officers by the Minister of Labour to administer Part II of the *Canada Labour Code* as it applies to facilities regulated by the Board.

The NEB Act requires that the Board keep under review matters relating to all aspects of energy supply, production, development and trade that fall within the jurisdiction of the federal government. The NEB may, on its own initiative, hold inquiries and conduct studies on specific energy matters as well as prepare reports for Parliament, the federal government and the general public. Upon request, the NEB provides advice to the Minister of Natural Resources and other government ministers, departments and agencies. The NEB also provides expert technical advice to the Canada-Newfoundland Offshore Petroleum Board (C-NOPB), the Canada-Nova Scotia Offshore Petroleum Board (C-NSOPB), Natural Resources Canada (NRCan) and Indian and Northern Affairs Canada (INAC).

Additional information on the background and operations of the NEB may be found at the Board's Web site, www.neb-one.gc.ca.

REGULATORY HIGHLIGHTS

In 2003, the NEB considered applications for new pipeline facilities, new international power lines, tolls and tariffs filings, short-term export orders and permits, and to conduct activity in frontier areas. In addition to inspections undertaken during construction, post-construction monitoring and inspections and audits of operating pipelines and facilities were conducted. The NEB also prepared reports on current and future energy market developments in Canada. These activities are summarized below:

Certificates, Orders, Permits and Applications Approved in 2003

• 766 total Certificates, Orders, Permits and Letter Approvals

Construction and Operation of Pipelines and Power Lines Under Parts III and III.1 of the NEB Act

- 5 Certificates of Public Convenience and Necessity
- 179 Orders

Pipeline Tolls and Tariffs Under Part IV or the NEB Act

18 Orders

Export of Natural Gas, Crude Oil and Electricity Under Part VI of the NEB Act

411 Orders and Permits

Letter Approvals

• 53 Letters

Exploration and Production Activity on Frontier Areas Under the COGO Act

• 100 Applications approved

Activity in Frontier Areas under the CPR Act

- 6 Significant Discovery Applications
- 3 Commercial Discovery Applications

Proceedings

- 7 public hearings
- 78 hearing days

Compliance Monitoring

- 34 inspections undertaken during construction
- 73 inspections of operating pipelines and facilities
- 7 management system audits

Appropriate Dispute Resolution Program

- 4 landowner files addressed
- 1 toll workshop

Provision of Energy Market Information

- Canadian Electricity Exports and Imports: An Energy Market Assessment (January 2003)
- The Maritimes Natural Gas Market: An Overview and Assessment (June 2003)
- Canada's Energy Future: Scenarios for Supply and Demand to 2025 (June 2003)
- Short-term Natural Gas Deliverability from the Western Canada Sedimentary Basin 2003-2005 (December 2003)

DEVELOPING REGULATIONS AND GHIDFLINES

In the September 2002 *Speech from the Throne*, smart regulation was set out as a key strategy in maintaining a Canadian advantage in a globally competitive world. In keeping with this theme, the NEB continued to develop its own smart regulation strategy based upon a goal-oriented approach to regulation, coupled with clear and predictable regulatory processes and effective cooperation and partnerships with government agencies and boards.

In the goal-oriented approach to regulation, the regulations identify the outcomes that it seeks to attain, while allowing companies the flexibility to select the best methods to achieve the outcomes. The goal-oriented approach promotes increased industry responsibility, allows for flexibility and efficiency, and provides opportunities to adopt improved operational and safety techniques in a more timely manner. It places an increased emphasis on risk assessment and the

The NEB Processing Plant Regulations came into effect in January 2003. This regulation uses a goal-oriented approach and deals with the design, construction, operation and abandonment of federally-regulated gas processing plants. The NEB is using the goal-oriented approach in developing other regulations including the proposed Damage Prevention Regulations, the Canada Oil and Gas

use of management systems.



Diving Regulations, and the Canada Oil and Gas Drilling and Production Regulations.

In January 2003, the NEB released the revised *Guidance Notes for the Onshore Pipeline Regulations*, 1999. The revised guidance notes reflect extensive consultation with stakeholders, which began at the NEB Spring Workshop held in June 2002. In 2003, to assist development of the proposed new *Damage Prevention Regulations*, the Board undertook extensive consultations with stakeholders across Canada based on a conceptual draft of the regulation that had been released in May 2002. The draft *Guidance Notes for the National Energy Board Damage Prevention Regulations* were also released for comment in November 2003.

A key tool to encourage completeness when filing applications under the NEB Act is the new NEB Filing Manual, which is an updated version of the 1995 Guidelines for Filing Requirements. The manual outlines the information the Board requires to evaluate a project and make an informed decision. By providing applicants with clarity as to the information required by the NEB during the application process, it is expected that more complete applications will be received by the Board, thereby reducing the number of information requests and leading to increased efficiency in the application process. The NEB Filing Manual is expected to be published in the spring of 2004.

The NEB was also active in developing and maintaining regulations regarding exploration and development activities under the COGO Act. These regulations, developed in co-operation

with NRCan, C-NOPB, C-NSOPB, the Nova Scotia Department of Natural Resources and the Newfoundland Department of Mines and Energy, ensure common regulatory approaches for activities in the offshore regions, the Northwest Territories and Nunavut. The NEB also provided advice to Human Resources Development Canada for the update of the *Oil and Gas Occupational Safety and Health Regulations* under the *Canada Labour Code*, *Part II*.

The Board continued to participate with industry, government and stakeholder groups in a number of initiatives to develop consensus-based standards, best practices and common approaches to safety and environmental issues. For example, the NEB participated in the revision of the Canadian Standards Association (CSA) standard for oil and gas pipeline systems, CSA Z662, which was released in July 2003.

Applications Highlights

In 2003, the Board considered applications for new pipeline facilities, new international power lines, tolls and tariffs filings, applications for short-term export orders for oil and gas, and export permits for electricity. Appendices B, C and E contain details of regulatory decisions issued in 2003.

In considering an application, large or small, the Board is cognizant of its public interest responsibilities. Applications for smaller pipelines, facilities expansions or power line facilities require as careful scrutiny from the Board in terms of the broader public interest as do applications for major facilities. Several 2003 applications prompted significant public participation and dealt with complex environmental and social issues. The Board takes its role in considering the unique balance of public interests equally seriously in each of these cases.

PIPELINE FACILITIES

The Board considered several major applications for natural gas facilities in British Columbia and convened two hearings for oil pipeline facilities in 2003.

In January 2003, the Board approved an application by Westcoast Energy Inc., carrying on business as Duke Energy Gas Transmission Canada (Westcoast), to expand its Southern Mainline Transmission System. The approved facilities consist of approximately 54.6 kilometres of 1 067 mm⁵ natural gas pipeline in six loop segments along the existing mainline, additional facilities at several compressor and meter stations, providing for additional capacity of approximately 5.7 10⁶m³/d to the Southern Mainline system. In April 2003, Westcoast advised the NEB that approximately 3.3 10⁶m³/d of released capacity was not recontracted on the Southern Mainline and, as a result, the company decided to postpone construction of some of the approved facilities.

In August 2003, the Board approved an application from Trans-Northern Pipelines Inc. (Trans-Northern) to increase the capacity of its petroleum products pipeline system from Montréal, Quebec to Farran's Point near Ingleside, Ontario and to reverse the direction of flow between Farran's Point and the Clarkson Junction in Mississauga, Ontario. The decision also approved priority access from Montréal to Oakville of 7.3 10 m³/d to Petro-Canada and 1.8 10 m³/d to Ultramar Ltd., as outlined in their respective priority access agreements with Trans-Northern. The project consisted of replacing four line segments totaling approximately 72.5 kilometres between Montréal and Farran's Point; upgrades to four pump stations at Montréal and Como, Quebec

⁵ The NEB uses the International System of Units. A metric conversion table is provided at the end of this report.

and Lancaster and Ingleside, Ontario; the construction of four storage tanks at the Farran's Point pump station; and the construction of three pump stations near Iroquois, Mallorytown and Ingleside, Ontario.

In September 2003, the Board approved an application from EnCana Ekwan Pipeline Inc. to construct and operate a sweet natural gas pipeline. The approved pipeline consists of 82.5 kilometres of 610 mm pipeline and associated facilities with a design capacity of approximately 11.8 10⁶m³/d. The pipeline route will begin at the EnCana Oil & Gas Partnership's Sierra Plant near Fort Nelson, British Columbia and terminate at a tie-in point on Nova Gas Transmission Ltd.'s mainline near Rainbow Lake, Alberta.

In November 2003, the Board approved an application from Trans-Northern to relocate approximately 525 metres of 406.4 mm pipeline and lower two other sections of its refined petroleum products pipeline in King's Forest Park in Hamilton, Ontario. The City of Hamilton had requested that Trans-Northern relocate and lower its pipeline in order to accommodate construction of the Red Hill Creek Expressway. The Board held a written proceeding to consider the project.

Also in November 2003, the Board approved an application submitted by Georgia Strait Crossing Pipeline Limited, on behalf of GSX Canada Limited Partnership, to construct and operate the GSX Canada Pipeline. The GSX Canada Pipeline is the Canadian portion of the Georgia Strait Crossing Project, a new international pipeline that would enable natural gas to be transported from Sumas, Washington to Vancouver Island, British Columbia. The GSX Canada Pipeline would consist of approximately 60 kilometres of 406 mm pipeline and related facilities, extending from a point on the Canada-United States border in Boundary Pass to a point south of Duncan on Vancouver Island.

The application was considered by a Joint Review Panel. The Panel was established under the CEA Act and the NEB Act to conduct a joint review of the project. The application was approved following the Government of Canada's response to the Joint Review Panel Report, which was released in July 2003. In its report, the Panel concluded that the GSX Canada Pipeline Project is not likely to result in significant adverse environmental effects provided the Panel's recommendations regarding environmental matters are implemented and appropriate mitigation identified during the course of the review is applied. The government's response also required that environmental conditions be part of any regulatory approval. Subsequently, the Panel made its decision under the NEB Act and, subject to the approval of the Governor in Council, issued a Certificate of Public Convenience and Necessity for the GSX Canada Pipeline Project, subject to the fulfillment of 33 conditions, including the need for regulatory approvals for the proposed Vancouver Island Generation Project (VIGP) facility near Nanaimo.

In February 2003, Encana Corporation requested that its application before the C-NSOPB and the NEB for the Deep Panuke Offshore Gas Development project be adjourned *sine die* and that the balance of the proceedings be suspended. In response, the NEB and the C-NSOPB agreed to suspend the coordinated public process for the review of the project. The NEB rescinded the authorization of its Member under section 15 of the NEB Act and adjourned the GH-4-2002 proceeding. Subsequently, in December 2003, Encana withdrew its application from both Boards and requested that any further consideration of its applications be discontinued.

TOLLS AND TARIFFS MATTERS

One public hearing was held in 2003 to consider tolling matters. The Board also approved uncontested applications relating to toll settlements and pipeline tariffs, and conducted a number of financial audits.

In February 2003, the Board convened the RH-1-2002 proceeding. This was the first fully-contested cost-of-service tolls hearing for TransCanada PipeLines Limited's (TransCanada) Mainline since the tolls for the 1994 Test Year were established in the RH-4-93 proceeding. In the decision released in July 2003, the Board approved a 2003 Average Rate Base of \$8.57 billion and a Net Revenue Requirement of approximately \$1.9 billion, an increase of approximately \$17 million over the 2002 level. In addition, the Board approved the establishment of a new Southwest Tolling Zone but required TransCanada to report on its use two years after implementation. The Board also approved an increase to the minimum bid floor price for Interruptible Transportation service from 80 to 110 percent of the 100 percent load factor Firm Transportation toll. The Board further approved a depreciation rate of approximately 3.42 percent for 2003, an increase over the 2002 rate which was 2.89 percent.

In July 2003, Maritimes and Northeast Pipeline Management Ltd. (M&NP) filed an uncontested toll settlement for the years 2004, 2005 and 2006. A unique feature of M&NP's settlement is the implementation of a levelized toll over the three-year period, subject to adjustments based on the disposal of the prior year's deferral account balances. Having received no comments in opposition from interested parties, the Board approved M&NP's toll settlement as filed.

Foothills Pipe Lines Ltd. (Foothills) filed an application pursuant to Part IV of the NEB Act for approval of a Settlement Agreement entered into between Foothills and the Canadian Association of Petroleum Producers in January 2003. The agreement was with respect to certain modifications to the existing cost of service methodology for fixing Foothills' tolls and a "Special Charge" recovered by Foothills in its tolls for certain expenditures that had been incurred for the development of the northern portion of the Alaska Natural Gas Transportation System project. The Board approved the Settlement Agreement in March 2003.

Westcoast submitted an application for approval of its 2003 final tolls in July 2003. The application was opposed by three interested parties, who objected to certain aspects of the income tax determination incorporated in the tolls. In November 2003, after considering the submissions from Westcoast and the interested parties, the Board denied the objection and approved the tolls as filed. The Board also approved a new toll for Terasen Gas Inc.'s firm service on Westcoast between Kingsvale and Huntingdon, British Columbia.

Power Line Facilities

The NEB conducted two hearings for proposed international power lines (IPLs) in 2003.

New Brunswick Power Corporation (NB Power) filed an application to construct a 95.5 kilometre, 345 kilovolt IPL from the existing transmission terminal at the Point Lepreau Generating Station to a point near Woodland on the Maine-New Brunswick border. The application was originally filed in 2001 and revised in 2002. In January 2003, Board staff held



public information sessions in Rennfield and St. Stephen, New Brunswick to give interested parties an opportunity to obtain information on how to participate in the hearing process. The public hearing was held in March 2003 in Saint John, New Brunswick. The Board approved the application in May 2003.

Sumas Energy 2 Inc. (SE2) filed an application with the Board in July 1999 (revised October 2000) to construct and operate an IPL. The proposed 230 kV IPL would originate in Sumas, Washington, cross the Canadian border near Abbotsford, B.C. and extend approximately 8.5 km northward to BC Hydro's Clayburn substation. The proposed IPL would move electricity to the B.C. grid from a gas-fired generating facility to be built and operated by SE2 in Sumas, Washington. The hearing took place over 39 days from January 2001 to September 2003. About 400 intervenors participated, a record number for an NEB proceeding. In December 2003, the Board issued, pursuant to the CEA Act, its Environmental Screening Report for public examination and comments.

ACTIVITY IN FRONTIER REGIONS

Exploration activity was primarily focused in the southern Northwest Territories (NWT) and the lower Mackenzie Valley and Mackenzie Delta areas. In 2003, geophysical activity decreased significantly while drilling programs continued at levels significantly higher than in the previous year. Activity in the southern NWT near the hamlet of Fort Liard and in the Central Mackenzie Valley focused on geophysical programs and exploratory drilling.

In 2003, the Board continued assessing applications for frontier projects. Activity was mostly related to the tie-in of the discovered gas reserves in the southern NWT. The oil and gas pool at Cameron Hills was brought on to initial production and tied into the Cameron Hills pipeline system that connects to pipelines serving North American markets. In addition to Cameron Hills, production operations continued from three producing gas fields near Fort Liard, the Norman Wells oil field and the Ikhil gas field, the latter supplying gas to Inuvik. Abandonment continued on the production facilities and wells at the Pointed Mountain Gas Field near Fort Liard, which produced gas from 1972 to 2001.

The NEB also received several Significant Discovery Applications and Commercial Discovery Applications for the southern and northern Northwest Territories pursuant to section 28 (or section 35) of the CPR Act. This is a result of an active exploratory drilling season by the petroleum sector operating North of 60.

In December 2003, pursuant to section 25 of the CEA Act, the NEB requested the federal Minister of the Environment to refer to a review panel an application submitted by

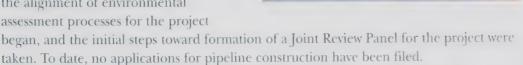
Geophysical Service Incorporated (GSI). GSI applied in September 2002 to gather up to 2 500 linear kilometres (km) of 2D marine seismic data in the western Gulf of St. Lawrence, principally in the area between Anticosti Island, Gaspé Peninsula and the Magdalen Islands. As part of the CEA Act assessment, the NEB sought and received extensive comments from the public and from federal authorities possessing expert or specialist information in respect of the project. The NEB determined that the project may cause significant adverse environmental effects and that public concerns warranted referral to a panel review.

REGULATORY COOPERATION IN THE NORTH

In 2003, the boards and agencies with regulatory and environmental assessment responsibilities in the Mackenzie Valley (12 organizations in total including the NEB) began implementation of the Cooperation Plan for the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline through the Northwest Territories (June 2002) (Cooperation Plan).

The Cooperation Plan sets out a coordinated process for review of a major pipeline application in a manner that is intended to reduce duplication, provide certainty and timeliness, and enhance public participation. A key element in the process is the establishment of the Northern Gas Project Secretariat (NGPS). The NGPS opened officially in December 2003 to assist the various parties to the Cooperation Plan.

In June 2003, Imperial Oil Resources
Ventures Limited, on behalf of itself,
ConocoPhilips Canada (North) Limited,
Shell Canada Limited, ExxonMobil
Canada Properties, and the Aboriginal
Pipeline Group, submitted a Preliminary
Information Package on the proposed
Mackenzie Gas Project to the various
boards and agencies. With this
information and applications to the
Mackenzie Valley Land and Water Board,
the alignment of environmental
assessment processes for the project



The NEB also participated in the multi-stakeholder development of the Mackenzie Valley Environmental Impact Assessment Review Board's *Draft Environmental Impact Assessment Guidelines*. These guidelines were released for discussion and comment in December 2003.

Energy Overview

In order to keep Canadians informed about trends and issues in energy markets on an ongoing basis, the Board conducts extensive monitoring of market activity for all of the commodities it regulates. This overview provides a summary of Canadian energy supply, consumption, production, prices, and trade over the past five years. The Appendices, prepared as a companion document to this Annual Report, provide details on supply and disposition of crude oil, natural gas and electricity, as well as on industry activity, facility certificates, orders and licences for exports and pipeline financial information (see the List of Appendices in Supplement VI).

In 2003, Canadian energy markets were characterized by higher and more volatile commodity prices, compared with 2002. Canadian energy prices would have been even higher if not for an 18 percent appreciation in the C\$/US\$ exchange rate as this ratio moved from 0.65 to 0.77 over the course of the year. The year 2003 was also marked by record exploration and development activity levels, as measured by the active drilling rig count, the number of wells drilled and by prices paid for land rights.

In spite of a record number of gas wells drilled, Canadian production of natural gas remained essentially flat in 2003, reflecting the maturing state of exploration and development within the Western Canada Sedimentary Basin (WCSB). Low levels of gas storage inventories in the spring, combined with supply concerns and high oil prices, resulted in generally higher natural gas prices for the year, with gas prices averaging \$6.31 per gigajoule in 2003.



The war in Iraq and the ongoing hostilities there, combined with other geopolitical problems such as political and social unrest in Venezuela and Nigeria, contributed to a high level of uncertainty in crude oil markets and resulted in higher average oil prices in 2003. The benchmark West Texas Intermediate (WTI) crude oil averaged US\$31 per barrel in 2003, an increase of about US\$5 compared with 2002. Domestically, Canadian crude oil markets saw the continuation of a trend whereby

declining conventional oil production in the WCSB is more than offset by expanding production from the East Coast and the oil sands. In 2003, the Alberta Energy and Utilities Board's (EUB) estimates for established reserves of crude bitumen (oil sands) in Alberta were officially recognized, for the first time, by the *Oil and Gas Journal* in its annual summary of world oil reserves.

In 2003, Canadian electricity markets featured continuing efforts to restructure the industry. The extent of restructuring varied widely across the country because regulation of the electricity industry is generally a responsibility of the provinces and territories. However, power generation levels, generally down across Canada due to poor water conditions, were offset to

some extent in Ontario by the restarting of several nuclear facilities. A major event in 2003 was the 14 August power outage, which affected an area with an estimated 50 million people and 61 800 megawatts of electric load in eight U.S. states and Ontario. Parts of Ontario experienced rolling blackouts for more than a week before full power was restored.

ENERGY AND THE CANADIAN ECONOMY

In 2003, the energy industry accounted for about six percent of Canada's Gross Domestic Product (GDP) and employed just under 300 000 people, representing 1.7 percent of the Canadian labour force. Energy export revenue accounted for an estimated 16 percent of all Canadian exports, up from 12 percent in 2002. This increase was largely due to higher energy commodity prices.

Economic growth in Canada slowed during 2003 due primarily to the effects of Severe Acute Respiratory Syndrome (SARS), concerns over Bovine Spongiform Encephalopathy (BSE), and a stronger Canadian dollar. Canada's real GDP increased by only 2.0 percent compared with 3.3 percent in 2002. During the 1999 to 2003 period, Canada's real GDP increased 3.5 percent per year on average.

Total Canadian energy production increased slightly less than one percent in 2003 compared with 0.5 percent in 2002 (Table 1). During the 1999 to 2003 period, total Canadian energy production increased on average 1.4 percent per year, consistent with a rising average real GDP.

Petroleum and natural gas accounted for over 75 percent of total production. While oil production saw an eight percent increase, accompanied by increased export volumes to the United States, moderate production declines were seen in most of the other energy sources. Modest hydro generation decreases, due to poor water conditions, were partially offset by increases in nuclear generation in Ontario. The nine percent decline in coal production can be attributed to a number of facility shut-downs and the industry going through restructuring and consolidation of operations early on in 2003. The contribution of the 'Renewables and Other' category increased by nearly two percent over the previous year.

Domestic Energy Production by Energy Source

	1999	2000	2001	2002	2003
Petroleum ^(b)	5 430	5 672	5712	5 831	6 418
Natural Gas	6 189	6 403	6 534	6 514	6 367
Hydroelectricity	1232	1277	1188	1249	1190
Nuclear	801	794	836	824	847
Coal	1589	1510	1533	1430	1303
Renewable and Other	627	627	588	631	650
Total	15 868	16 283	16 391	16 479	16 775

- (a) Estimates
- (b) Petroleum includes crude oil and gas plant natural gas liquids (NGL's)
 Source: Statistics Canada, NEB

TABLE 2

Domestic Energy Consumption (a) (petajoules)

	1999	2000	2001	2002	2003
Space Heating	1820	1934	1885	1976	1989
Transportation	2307	2 280	2 240	2 250	2340
Other Uses(c)	3 005	3 162	3 050	3 179	3 284
Non-Energy(d)	829	790	863	894	849
Electricity Generation(e)	1780	1804	1841	1937	2 030
Total	9741	9 970	9 879	10 236	10 492

- (a) Includes consumption of imported energy
- (b) Estimates.
- (c) Includes energy used for space cooling and ventilation as well as a variety of uses in the industrial sector.
- (d) Includes energy used for petrochemical feedstacks, anodes cathodes, greases, lubricants, etc.
- (e) Includes producer consumption and losses as well as nuclear energy conversion requirements.

 Source Statistics (anoda NEB

TABLE 3
Annual Average Fuel prices (a)

fuel Type	1999	2000	2001	2002	2003 ^(d)
Natural Gas (\$/GJ)(a)	2.8	4.8	5.9	3.8	6.3
Regular Unleaded Gasoline					
(¢/litre) ^(b)	58.8	72.2	69.9	69.4	73.6
#1 Diesel Fuel (¢/litre)(b)	53.6	67.4	68.1	63.0	69.1
Furnace Oil (¢/litre)(b)	37.2	53.9	53.3	49.9	57.2
Electricity (¢/kWh)(c)	7.9	7.9	7.2	8.5	8.9

- (a) AECO-C price, exclusive of transportation and distribution charges.
- (b) Average full serve/self serve, 10 Canadian cities.
- (c) Average of 11 Canadian cities, taxes excluded.
- (d) Estimated.

Source: Statistics Canada, NEB, Hydro-Québec.

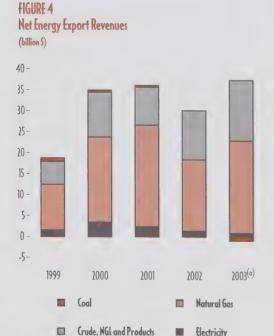
Preliminary estimates indicate that domestic energy consumption increased by approximately 2.5 percent in 2003, a greater increase than that of the Canadian economy, and occurred despite commodity price increases. However, during the 1999 to 2003 period, Canadian energy consumption increased, on average, 1.9 percent per year, compared with an average real GDP rate increase of approximately 3.5 percent per year, indicating a declining trend in the energy intensity of the economy (see Table 2).

In 2003, energy consumers faced higher energy prices (Table 3). The rise in natural gas prices caused difficulties for some users, particularly residential users and those industrial users who

had little opportunity to switch to other fuels. Spot gas prices (AECO-C) rose to over \$8 per gigajoule in March, at the end of the 2002-2003 heating season, and averaged \$6.31 for the year, compared to \$3.83 in 2002. Higher oil prices in 2003 resulted in higher retail gasoline, diesel fuel and furnace oil prices across Canada.

Electricity prices continued to be regulated in most regions. The price data indicate that Canadian residential electricity prices increased by about five percent, with increases occurring primarily in unregulated markets.

In 2003, the gross export revenues from natural gas, petroleum, electricity and coal were



nearly \$62 billion, about 27 percent higher than 2002 levels, mainly due to higher commodity export prices. In 2003, Canada's energy trade surplus (the value of energy exports minus value of energy imports) was \$36 billion, up \$6 billion from 2002 (Figure 4).

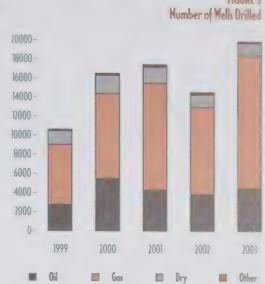
UPSTREAM ACTIVITY

In response to higher commodity prices and low storage levels for natural gas at the start of the year, a record 19 957 wells were drilled in 2003. This exceeded the previous high of 17 461 wells drilled in 2001, and exceeds 2002 drilling by 5 399 wells (Figure 5). Strong natural gas prices kept the drilling focus on natural gas through 2003, with gas well completions, at 14 010, making up 70 percent of all wells. Oil well drilling was 17 percent higher than in 2002, with 4 488 oil wells completed. The proportion of dry wells to total wells drilled decreased to 6.3 percent this year compared with

(a) Estimated

8.9 percent in 2002. This improvement may be due to advancements in drilling and exploration technology, as well as a greater concentration on drilling in established production areas.

Competition for land rights heightened in 2003, resulting in a record year for sales of licences and leases for the right to explore for and develop oil and natural gas resources. Revenue from land sales bonuses collected by the four western Canadian provinces increased to \$1.7 billion, up by 91 percent, led by record and near-record sales performances in British Columbia and Saskatchewan, respectively. Thanks in large part to a revamped oil and gas royalty system, British Columbia set a provincial record for annual sales, at \$647 million, and also set a single month record for any gas and oil lease auction in Canada, netting \$418 million in September.



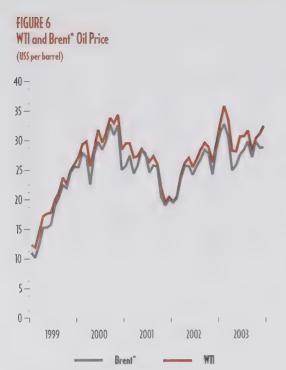
Saskatchewan recorded its second highest annual sales ever, with bonuses of \$159 million. The average price per hectare in the WCSB increased to \$346 versus \$209 in 2002. In addition to interest in traditional areas, the Deep Basin and Foothills Regions of British Columbia and Alberta, and coalbed methane areas attracted increased attention.

Also, under the work bid system of acquiring land rights, where the bids represent the amounts bidders have committed to spend on exploration, the province of Saskatchewan accepted work bids for \$15.1 million covering 629 500 hectares, while British Columbia issued work bids covering 91 389 hectares for \$14 800.

Interest in land rights acquisition in the frontier areas also increased, with most of this interest focused on the East Coast offshore area, with work bids in Newfoundland totaling \$ 673 million for 2.1 million hectares, all in the Orphan Basin, while Nova Scotia accepted bids of \$14.1 million for 150 thousand hectares, and Prince Edward Island accepted \$3.3 million for 107 thousand hectares. In the Northwest Territories, work bids of \$1.1 million, covering 80,000 hectares in the central Mackenzie Valley, were issued.

Seismic survey activity decreased in 2003, with the monthly average crew count at 21, down from 27 in 2002. This is below the five-year average level of activity, and is the second year in a row of reduced seismic surveying. Seismic activity in western Canada was focused in the northeast region of British Columbia, as well as the west and central regions of Alberta.

In Western Canada, rig activity boomed in 2003, with the monthly average drilling rig count increasing to 397, a 40 percent increase over 2002, exceeding the 2001 record year by 36 rigs per week. Higher oil and gas prices helped producers expand their drilling programs. The most active areas were northeastern British Columbia, the Alberta Foothills, southeast Alberta and southwest Saskatchewan.



* Brent is the common benchmark for Euopean crude oil pricing.

Expenditures of \$23 billion for exploration and development of Canadian conventional and frontier areas (excluding oil sands) were made in 2003, up 35 percent from 2002. Exploration spending continues to be about one-third of the total oil and gas exploration and development expenditure in Canada.

CRUDE OIL AND NATURAL GAS LIQUIDS

International Markets

World crude oil prices were strong in 2003 under the influence of rising geopolitical tensions. WTI began the year around US\$32 and reached nearly US\$40 by the end of February 2003. Factors influencing price included extremely tight worldwide inventories caused by the December 2002 general strike in Venezuela, which led to severely reduced oil production in that nation at the beginning of 2003, and by anticipation that the United States would invade Iraq. With the end of the winter and the Iraq

war, prices fell to about US\$27. By mid-year, however, prices had recovered to approximately US\$32 as Iraqi production was slow to recover due to extensive damage sustained by all facilities as a result of the war. Prices remained strong through the balance of 2003 and closed at approximately US\$32.50. WTI averaged US\$31 in 2003, an increase of about US\$5 compared with 2002 (Figure 6).

TABLE 4
Canadian Production of Crude Oil and Natural Gas Liquids
(thousand cubic metres per day)

	1999	2000	2001	2002	2003 ^(a)
Conventional Light (East)	17.5	23.6	24.3	45.8	55.6
Conventional Light (West)	113.1	108.3	103.9	96.5	90.9
Synthetic	51.5	50.1	54.7	68.1	80.9
Pentanes Plus	27.2	27.3	25.9	24.5	25.4
Total Light	209.3	209.3	208.8	234.9	252.8
Conventional Heavy	83.0	89.0	90.9	87.8	87.2
Bitumen	42.1	44.4	47.8	47.6	55.0
Total Heavy	125.1	133.4	138.7	B5.4	142.2
Total Crude Oil and Equivalent 334:		342.7	347.5	370.4	395.0
Natural Gas Liquids	101.2	99.8	94.2	94.7	91.7

(a) Estimates.

The Organization of Petroleum Exporting Countries (OPEC) held seven meetings in 2003 to assess the worldwide supply and demand situation and to establish its production quotas. Effective 1 January 2003, OPEC increased its quotas by 1.3 million barrels per day to 23 million barrels per day. Quotas rose again effective 1 February 2003, by 1.5 million barrels per day and by an additional 900 000 barrels per day on 1 June 2003. A quota reduction of 900 000 barrels per day to 24.5 million barrels per day was implemented on 1 November 2003. OPEC did not change output levels at its final meeting of the year on 4 December 2003, but said that it would meet on 10 February 2004 to prepare for the seasonal decline in demand beginning in the second quarter.

Production and Reserves Replacement

Canadian production of crude oil and equivalent continued the trend of establishing new records, with production estimated at an average of 395 000 cubic metres per day (m³/d), up by nearly seven percent from 2002 levels. This growth reflects increased synthetic and bitumen production from Western Canada and an increase in conventional light crude oil production from offshore Eastern Canada (Table 4).

Production in offshore Newfoundland and Labrador was up by 24 percent in 2003, to nearly 57 000 m³/d, reflecting the first full year of operation of the Terra Nova field and ongoing operations at Hibernia. In Western Canada, crude oil and equivalent supply increased by about 4.6 percent in 2003. Conventional light crude oil production declined by 6.2 percent, continuing a long-term trend reflecting the natural decline of the reservoirs. Conventional heavy crude oil production decreased by about one percent, down some four percent below peak production levels in 2001.

While remaining established reserves are reduced by production each year, new discoveries, extensions to existing pools and revisions to reserves estimates in existing pools usually add to reserves. From 1998 to 2002, on a cumulative basis, additions to established reserves of conventional light and heavy crude oil replaced 97 percent of production (Table 5). Declining WCSB reserves were nearly offset by reserve additions from the East Coast offshore.

The NEB's estimate of total remaining Canadian conventional crude oil and crude bitumen (oil sands) reserves at year-end 2002 (the last year for which data is available) is 28.4 billion cubic metres (179 billion barrels), which is essentially unchanged from 2001 (Table 6). This means that reserves additions

TABLE 5 Conventional Crude Oil Reserves, Additions and Production — 1998-2002

(million cubic metres)

	1998	1999	2000	2001	2002	Terre
Additions(0)	68	129	78.8	35	88.1	398
Production	87	78	79.1	84	81.0	409
Total Remaining Reserves	650	702	700	680	690	
Total in Millions of Barrels	4 095	4 423	4 410	4 284	4347	

(a) Hibernia production started in 1997; Terra Nova reserves added in 1999, and White Rose added in 1900)

TABLE 6 Estimates of Established Reserves of Crude Oil and Bitumen at 31 December 2002 (million cubic metres)

Conventional Crude Oil	Initial	Remoter
British Columbia(a)	122.2	22.3
Alberta ^(b)	2 603.3	260.5
Saskatchewan ^(c)	805.0	183.0
Manitoba ^(d)	37.4	2.5
Ontario ^(e)	14.4	1.7
NWT and Yukon:		
Arctic Island and Eastern Arctic Offshore(1)	0.5	0.0
Mainland Territories - Norman Wells	47.9	14.4
Nova Scotia (4) - Cohasset and Panuke	7.0	0.0
Newfoundland(d) - Hibernia and Terra Nova and Whi	te Rose 247.0	203.6
Total	3884.7	688.0
Total in Millions of Barrels	24 474.0	4334.0
Crude Bitumen		
Oil Sands - Upgraded Crude(b)	5 590.0	5 170.0
Oil Sands - Bitumen ^(b)	22 740.0	22 560.0
Total	28 330.0	27 730.0
Total in Millions of Barrels	178 479.0	174 699.0
Total Conventional and Bitumen	32 214.7	28 418.0
Total in Millions of Barrels	209 953.0	179 033.0

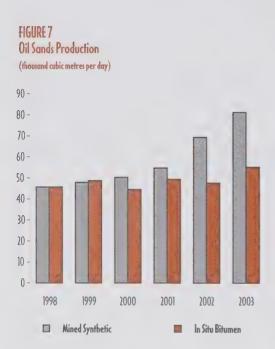
- (a) British Columbia Ministry of Energy & Mines and NEB common database
- (b) Alberta Energy & Utilities Board and NEB common database
- (c) Provincial estimate for 31 December 2001 estimated by SEM to 2002
- (d) Provincial Agencies and Offshore Boards
- (e) Canadian Association of Petroleum Producers
- (f) Bent Horn abandoned 1996

Note Totals may not add due to rounding

fully offset production for the year. Estimates of remaining conventional crude oil reserves in Canada increased by 1.3 percent to 688 million cubic metres (4.3 billion barrels) for 2002, as the recognition of reserves from the White Rose field, situated offshore Newfoundland, more than offset production for the year.

Oil Sands (Crude Bitumen)

There were no changes to the estimates of initial reserves of crude bitumen in 2002; thus, remaining reserves decreased by an amount equivalent to bitumen production volumes (Table 5). It is noteworthy that the estimates for established reserves of crude bitumen in Alberta were officially recognized, for the first time, by the Oil and Gas Journal in its annual summary of world oil reserves.



Canada's oil sands are becoming an increasingly important source of crude oil production, with 2003 production of 135 900 m³/d (856 000 bbl/d) making up some 34 percent of total Canadian crude oil and equivalent production. Early in 2003, Shell Canada and partners Chevron Canada and Western Oil Sands celebrated the start-up of the Athabasca Oil Sands Project, Canada's third open-pit oil sands mine and upgrader operation.

In June 2003, Imperial Oil officially opened its plant and field facilities for the Mahkeses (Phases 11-13) project, a major expansion of its bitumen recovery operations at Cold Lake, adding some 4 800 m³/d (30 250 bbl/d) of production capacity. The ongoing development of Canada's oil sands resources resulted in sizable production increases, with synthetic crude oil up by 19 percent and *in situ* bitumen up by 16 percent over 2002 (Figure 7).

Additional milestones in 2003 included the corporate sanctioning of two new steam-assisted gravity-drainage (SAGD) projects, the ConocoPhillips/TotalFinaElf-Surmont project, and the Devon Energy-Jackfish project. Suncor Energy Inc. (Suncor) also completed the first stage of its Firebag SAGD project. On a different note, the Fort Hills Energy-TrueNorth mining project was delayed indefinitely by the company, citing rising labour costs, tight financial markets and uncertain impacts of implementing the Kyoto environmental accord.

On the bitumen refining side, Petro-Canada downgraded its \$5.8 billion oil sands strategy, opting for a \$1.2 billion plan to retrofit its Edmonton refinery to handle only oil sands bitumen, while making an arrangement with Suncor to process bitumen from the Petro-Canada Mackay River project. Suncor purchased a Denver-based refinery, with plans for significant upgrades to process oil sands bitumen.

Crude Oil Exports and Imports

Total crude oil exports, including pentanes plus and upgraded bitumen (synthetic crude), are estimated at 246 500 m³/d for 2003, an increase of 14 000 m³/d over 2002. The 2003 total consisted of 37 percent light crude oil and equivalent and 63 percent blended heavy crude oil. Production problems at Syncrude Canada Ltd. and Suncor affected exports of light crude oil during several months but were offset by increased exports of heavy crude oil. The overall demand for Canadian crude oil in the United States was strong, in part due to reduced Venezuelan exports to the United States and interruptions in restoring production in Iraq.

Prices remained relatively high throughout 2003, spiking in the first quarter with the heightened threat of a war with Iraq. The estimated value of crude oil exports in 2003 is \$20.7 billion, compared with \$18.9 billion in 2002. In 2003, the estimated

average light and heavy crude oil export prices were \$42 and \$34 per barrel respectively, compared with \$40 and \$33 per barrel in 2002 (Figure 8). Oil price gains in \$US terms were largely offset by a higher Canadian dollar.

The U.S. Midwest is the most significant market for Western Canadian crude oil. The markets in Chicago, Twin Cities and Toledo consumed 53 percent of total Canadian crude oil exports in 2003. The export market for eastern Canadian offshore production has been primarily the U.S. East Coast. Beginning in 2002, incremental volumes of Canadian East Coast production have penetrated the U.S. Gulf Coast.

On the Canadian West Coast, increased activity off Terasen Pipelines Inc.'s Westridge dock resulted in larger volumes of Canadian oil transported to California refineries. In 2003, there was also a slight increase in exports to Asia from this same facility.

In 2003, crude oil imports were 141 100 m³/d and represented 47 percent of total refinery feedstock requirements in Canada. Crude oil requirements for the Atlantic region and Quebec were met by imports as well as increasing volumes of East Coast domestic production. Ontario refiners received about 35 percent of their feedstock requirements from foreign sources in 2003, a small increase from 34 percent in 2002.

The light/heavy price differential widened in 2003 to an average of about \$11.55 per barrel compared with \$8.75 per barrel in 2002, as a result of an abundance of heavy supply in the marketplace. Canadian heavy crude oil prices reflected the weakening Gulf Coast heavy oil

⁶ The price difference between Edmonton Par Light and Hardisty heavy crude oils.

prices in the first part of 2003. The differential widened further by September as a result of high inventories caused by extensive refinery maintenance and side effects of the power outage in August. A weak asphalt season in the United States further reduced the price of heavy crude oil.

Oil Refining

In 2003, Canadian refining capacity was 326 100 m³/d, a slight increase over 2002, as a result of a small expansion in Western Canada and incremental capacity increases in the East. In 2003, the demand for petroleum products in Canada averaged 266 900 m³/d, a three percent decrease from 2002. Refinery production rose marginally to 319 000 m³/d. Refinery receipts of domestic crude oil averaged 152 800 m³/d, an increase of six percent from 2002. Commercial inventories of petroleum products in Canada closed the year slightly higher than in 2002.

Main Petroleum Products Exports and Imports

Historically, Canada is a net exporter of main petroleum products, including motor gasoline and middle distillates. For 2003, exports of main petroleum products and partially processed oil are estimated at 56 890 m³/d, a six percent increase from 2002. This increase in exports



was a result of a colder and lengthier winter in the U.S. northeast and fuel switching from high priced natural gas to distillate.

The estimated revenue from main petroleum product exports, including partially processed oil, was \$5.0 billion in 2003, up from \$4.4 billion in 2002. The increase was a result of very high distillate and gasoline prices early in the year and very strong gasoline demand through the summer in the U.S. This revenue excludes product exports from crude oil processing agreements for which prices are not assigned. The United States continued to be the largest buyer of Canadian-produced petroleum products, accounting for approximately 95 percent of total exports. Exports were also made to Europe and small volumes to Mexico. The U.S. east coast continued to be the largest market, followed by the Midwest and the U.S. West Coast.

Imports of main petroleum products in 2003 are estimated at 25 370 m³/d, a less than one percent decrease from 2002.

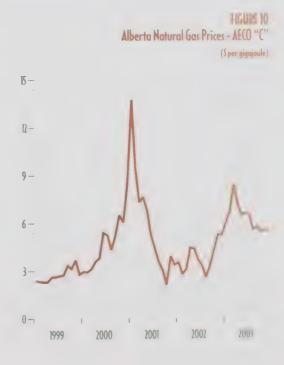
Natural Gas Liquids (excluding Pentanes Plus)

Natural gas liquids (NGL) is the collective term for the ethane, propane and butanes that are recovered from natural gas processing. Propane and butanes are also produced from crude oil refining processes. In 2003, it is estimated that approximately 81 percent of propane and 61 percent of butane supplies in Canada were sourced from natural gas production.

NGL production economics are defined by the relationship between natural gas, crude oil and liquids prices. Historically, crude oil tends to trade above natural gas prices on a heat content basis. Although throughout most of 2003 natural gas prices traded above parity to crude oil, crude oil prices remained relatively high due to several extraordinary international events and

supply concerns. The NGL market reacted to the higher natural gas prices with increased liquids prices, which generally improved extraction margins and helped to maintain liquids production levels. For example, high Sarnia propane prices throughout most of 2003 appear to have provided Canadian producers with sufficient incentive to extract propane from the natural gas stream.

Production of NGLs from gas plants and refineries decreased from 94 682 m³/d in 2002 to 90 700 m³/d in 2003, a decrease of four percent, mainly due to a slight decline in natural gas production and some loss of production related to periods of poor extraction margins. In 2003, ethane production was 38 300 m³/d, propane production was 29 500 cubic m³/d and the production of butanes was 22 900 m³/d. Propane and ethane production dropped by approximately four and five percent respectively from 2002; butane production declined three percent.



For 2003, estimated total NGL export volumes are 28 900 m³/d of which 22 900 m³/d are propane and 6 000 m³/d are butane. Propane and butane exports fell by 11 and 10 percent respectively, from 2002 levels. The decline in propane exports can be attributed mainly to increased Eastern Canadian demand to replenish inventories and lower Cochin Pipe Line Ltd.'s (Cochin) shipments due to flow restrictions on that line since July 2003. The decline in butane exports reflects increased use for domestic gasoline blending and heavy oil diluent, leaving less volume available for exports. Ethane continues to experience a tight supply and demand balance, with no volumes available for export.

The U.S. Midwest continues to be Canada's largest market for propane and butanes, accounting for 60 percent of the total export volume. Smaller amounts were delivered to the U.S. East Coast and U.S. West Coast. Although export volumes decreased in 2003, the estimated value of NGL exports is \$2.5 billion, up 30 percent from 2002.

NATURAL GAS

Natural Gas Markets

Alberta spot gas prices were on the upswing at the beginning of 2003, rising to \$8 per gigajoule at the end of the 2002-2003 heating season as storage inventories reached very low levels. Gas prices remained at over \$5 per gigajoule despite record storage injections through to the start of the 2003-2004 heating season. Expectations that North American gas production would continue to decline moderately, combined with robust crude oil prices, contributed to the strength of gas prices. Higher natural gas prices in 2003 spurred gas well drilling activity in Canada to record levels.

Natural Gas Demand

Canadian natural gas demand increased in 2003 by 2.7 percent, to 201 million m³/d. This increase in domestic gas consumption can be attributed to very cold weather at the end of the

TABLE 7
Estimates of Established Reserves of Marketable Natural Gas at 31 December 2002
(billion cubic metres)

	Initial	Remaining
British Columbia(o)	690.2	254.9
Alberta ^(b)	4313.5	1171.4
Saskatchewan ^(c)	221.2	77.0
Ontario ^(d)	44.6	11.5
NWT and Yukon	26.8	13.0
Nova Scotia - Offshore(c)	85.0	71.3
Total	5 3 8 1.3	1599.1
Total in Trillion (whic feet	190.0	564

- (a) British Columbia Ministry of Energy & Mines and NEB common database.
- (b) Alberta Energy & Utilities Board and NEB common database.
- (c) Provincial estimate for 31 December 2002.
- (d) Canadian Association of Petroleum Producers.

2002-2003 heating season and to the expanding Canadian economy. Most provinces witnessed higher gas consumption in 2003. However, lower gas production from offshore Nova Scotia and competition from fuel oil contributed to lower gas demand in Nova Scotia.

Production

Despite record gas well drilling in 2003, production decreased by approximately three percent. Canadian marketable natural gas production in 2003 totaled 476 million m³/d (16.8 Bcf/d), a decrease from 490 million m³/d (17.3 Bcf/d) in 2002. This production decline is primarily attributed to the reduced drilling levels in 2002, when only 9 161 gas wells were drilled compared with an average 11 450 wells drilled over the last three years. Lower initial productivity of new wells is also a factor.

In 2003, Alberta accounted for 78 percent of total Canadian natural gas production, British Columbia 14 percent, Saskatchewan four percent, and Nova Scotia three percent.

Reserves

The NEB's estimate of remaining marketable gas reserves at the end of 2002 (the last year for which data is available) is 1 599 billion cubic metres (56.4 Tcf) (Table 7). Strong exploration activity in 2002 contributed to a reserves replacement of about 96 percent of gas production in 2002. Over the last five years, cumulative additions of marketable gas reserves replaced 89 percent of total gas production

TABLE 8
Natural Gas Reserves, Additions and Production
(billion arbic metres)

	1998	1999	2000	2001	2002	Total
Additions(0)	119	152	153	176	169	769
Production(b)	165	170	176	179	179	869
Total Remaining						
Reserves	1651	1629	1622	1612	1599	
Total in Trillion						
Cubic Feet	58.3	57.5	57.3	56.9	56.4	

- (a) East Coast reserves added in 1997, production started in late 1999
- (b) CAPP.

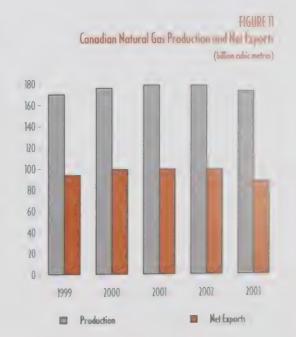
(Table 8). On a regional basis, only British Columbia saw an increase in its reserves from 2001 to 2002. Reserves in that province rose to 255 billion cubic metres (9.0 Tcf) from 252 billion cubic metres (8.9 Tcf).

Natural Gas Exports and Imports

In 2003, net export volumes were 88.0 billion cubic metres (3.11 Tcf), a decrease of 11.5 percent from 2002. Total gross exports for 2003, at 98.9 billion cubic metres (3.49 Tcf), were down 7.6 percent from the previous year because of lower production and higher demand in Canada, and a decrease of natural gas demand in the United States. The gas demand in the U.S. decreased primarily in the industrial and electric power sectors as a result of high prices and sharply lower weather-related demand following the first quarter. Imports of natural gas increased to 10.9 billion cubic metres (0.39 Tcf) compared with 7.7 billion cubic metres (0.27 Tcf) in 2002, corresponding to the overall increase in domestic demand for 2003.

Net exports accounted for 52 percent of total Canadian production in 2003, reduced from 55.5 percent in 2002 (Figure 11). The distribution of exports in 2003 was 47 percent to the Midwest and Mountain regions, 22 percent to the Northeast, 26 percent to California and the Pacific Northwest, and 5 percent to other export points. About 84 percent of these exports flowed under short-term orders; the remainder of exports flowed under long-term licenses.

The revenue from Canadian natural gas exports increased 41 percent, from \$18.3 billion in 2002 to \$25.6 billion in 2003, despite a 7.6 percent reduction in export volume. This reflects a 51 percent increase in the average export price to \$6.75 per gigajoule in 2003, compared to \$4.47 per gigajoule in 2002.





ELECTRICITY

Market and Restructuring Developments

Over the last decade, many North American electricity markets have been restructured. In a traditional market structure, one utility provides generation, transmission and distribution of electricity in a franchise area, and has only limited access to other markets. Consumers pay regulator-approved prices based on the costs of providing those services. The intention of restructuring is to separate these three functions and introduce competition to the generation sector. Wholesale access to transmission grids enables distribution companies or other large buyers to use the transmission grid to purchase electricity from the most competitive generation sources. Retail access gives consumers a choice among suppliers because marketers are able to use distribution systems to sell electricity to end-use consumers. Prices in the restructured environment are negotiated between buyers and sellers.

Canadian Developments

The extent of restructuring in Canada varies across the country because regulation of the electricity industry is generally the responsibility of the provinces and territories. Only Alberta and Ontario offer wholesale and retail access, although competition is somewhat limited. British

Columbia, Saskatchewan, Manitoba, and Québec all offer wholesale access to transmission. New Brunswick has introduced a new *Electricity Act* which will allow wholesale access on 1 April 2004. In October 2003, Nova Scotia's Electricity Marketplace Governance Committee released its final report recommending introduction of limited competition in the province's electricity marketplace with the wholesale market expected to open in 2005.

In New Brunswick, the new *Electricity Act* provides the legal framework for that province to reform its electricity market and reorganize NB Power as it has planned to do for several years. In accordance with the Act, NB Power would become the NB Power Holding Corporation with four subsidiaries (distribution and customer service, generation, nuclear, and transmission). The NB Electric Finance Corporation would be created to manage and retire the Province's share of debt, and an independent system operator would manage the market rules and the electricity transmission system. New Brunswick is introducing



wholesale access only and has no plans to open the retail market to competition.

The Ontario market opened to wholesale and retail competition in May 2002 with little or no immediate impact on consumers. However, as the summer progressed, growing supply deficiencies in regional markets at times exposed Ontario consumers to volatile electricity prices. In November 2002, the provincial government capped the retail price of electricity for many consumers⁷ at 4.3 cents per kilowatt hour retroactive to the date the market opened. This price cap was planned to be in effect until 2006. However in November 2003, the new government introduced proposed legislation, the *Ontario Energy Board Amendment Act*, 2003, which outlines an interim pricing plan. Under this plan, effective 1 April 2004, consumers would pay 4.7 cents per kilowatt hour for the first 750 kilowatt hours consumed in a month, and 5.5 cents per kilowatt hour for consumption above that level. These rates would stay in effect until the Ontario Energy Board develops new mechanisms for setting prices. Under the proposed legislation, it is expected that electricity prices would more accurately reflect the cost of electricity and provide incentives for conservation, while continuing to protect consumers from price volatility.

U.S. Developments

Electricity providers in Canada and the United States rely on an integrated system to deliver electricity to their customers. Although Canada has historically been a net exporter of electricity to the United States, with surpluses primarily coming from hydro-rich provinces, electricity can flow in either direction across the border as required to meet load demands. Due to this degree of interdependence, it is important to consider the implications of developments in the United States, where federal initiatives are promoting further integration of the two country's systems.

⁷ The price cap applies to residential consumers, small commercial consumers and other designated consumers (e.g., schools post-secondary institutions, hospitals, nursing homes, charities).

During 2003, the two major initiatives pertaining to the regulation of electricity markets in the United States were the Federal Energy Regulatory Commission's (FERC) White Paper on the Wholesale Power Market Platform and the inclusion of mandatory reliability standards in proposed federal energy legislation.

The White Paper was the FERC's response to submissions it had received on its Standard Market Design, Notice of Proposed Rulemaking, July 2002 (SMD NOPR), which was intended to facilitate the development of regional transmission organizations (RTOs). The intent of the White Paper was to address the wide ranging feedback on the complex and lengthy initiative, including regional concerns around such matters as the method of managing transmission congestion, RTO governance and protection of the transmission rights of existing customers. In a related development, a draft provision in the electricity title of the energy bill proposed to the U.S. Congress, H.R. 6, directs the FERC not to take steps to implement Standard Market Design until 2007.

The electricity title of H.R. 6 also contains a provision for mandatory reliability standards, which would effectively replace, in the United States, the voluntary system of standards development and compliance currently overseen by the industry-based North American Electric Reliability Council (NERC). The mandatory standards would be developed and enforced by an Electric Reliability Organization, with regulatory oversight by the FERC. H.R. 6 urges the President to negotiate international agreements with Canada and Mexico toward adopting this mandatory approach. As of year-end 2003, H.R. 6 had not received Congressional approval.

North American Developments

On 14 August 2003, a major electrical power outage affected parts of the United States and Canada. According to the U.S.- Canada Power System Outage Task Force,⁸ the outage affected an area with an estimated 50 million people and 61 800 megawatts of electric load in eight states and Ontario. Power was not restored for two days in some parts of the United States and parts of Ontario experienced rolling blackouts for more than a week before full power was restored.

The Chairman of the NEB was a member of the joint U.S.- Canada Power System Outage Task Force, which investigated the outage to determine its causes and why it was not contained. Key factors identified in the Task Force's Interim Report were a lack of training, a lack of communication with other regions, and improper maintenance plans. The Task Force's work will continue as it develops recommendations to reduce the possibility of future outages and minimize the scope of any that occur.

Electricity Production

Hydro-generation accounts for about 60 percent of total Canadian generation (on average), but poor water conditions in many parts of Canada reduced hydro generation to about 58 percent of total generation this year. In Ontario some laid-up nuclear units were returned to service in the latter part of the year. OPG's 515 MW Pickering A Unit 4 returned to the grid on 25 September

⁸ Interim Report: causes of the August 14th Blackout in the United States and Canada, November 2003.

2003. Bruce A Unit 4 ramped up to 700 MW in November, and the twin Unit 3 was back in service by the end of the year and in the process of connecting to the grid. Therefore, nuclear production was higher this year and will likely increase next year as more units are returned to service. Thermal production sources showed a gain of approximately two percent compared to the previous year and a one percent increase, from 28 percent to 29 percent, in terms of its share of total Canadian generation (on average). This rise in share was due to an increase in utility conventional steam generation, which is, by far, the largest source of thermal production in Canada and accounted for about 81 percent of total thermal generation (on average). Fossil

fuels are the main feedstock for this type of generation (Table 9).

TABLE 9
Electricity Production(*)
(teruwatt hours)

	1999	2000	2001	2002	2003
Hydroelectric	341.7	353.3	328.2	345.9	332.2
Nuclear	69.3	68.7	72.4	71.3	75.4
Thermal	147.1	161.4	1648	160.7	737
Total	558.1	583.4	565.4	577.3	570.8

(a) Source: Statistics Canada Energy Statistics Handbook
Table 8.2 Utility Generation of Electricity in Canada plus Table 8.3
Industry Generation of Electricity in Canada

(b) Estimates.

Exports and Imports

Canadian demand for electricity has been growing moderately while generating capacity has increased more slowly. As a result, domestic demand is catching up with domestic supply. This





has reduced the amount of surplus power available for export and increased the need to import power. In 2003, water conditions were poor throughout much of Canada which decreased the availability of surplus hydro-electric generation. These combined factors resulted in a 20 percent decline in exports, from 36.5 to 29.3 terawatt hours, and a 55 percent increase, from 15.2 to 23.6 terawatt hours, in imports.

Manitoba, historically a net exporter, was a net importer of electricity in 2003.

Overall, net exports were 73 percent lower in 2003 than in 2002. Canada's net exports totaled nearly 6 terawatt hours, which was the lowest level of annual net exports since 1975.

Many of the recent regulatory projects reviewed by the NEB have been geared toward increasing imports. The approved NB Power Corporation's proposed line would increase import capability to 400 megawatts from 0 and increase export capability by 300 megawatts (see *Applications Highlights* section).

ALTERNATIVE AND RENEWABLE ENERGY

Alternative and renewable energy refers to the use of alternative fuels or fuelling methods in vehicles, such as ethanol and methanol in gasoline blends, fuel cells, and hybrid electric vehicles; and also refers to renewable energy sources such as wind, solar, small-hydro, biomass and micor-turbines. Wind, biomass in the form of wood waste, and small-hydro currently account for most of this energy source category. In 2003, alternative and renewable energy production increased by about 2 percent over 2002 and accounted for nearly four percent of total energy consumption in Canada.

In 2003, the installation of wind power facilities increased capacity by 81 240 kW, or 35 percent, to a total of 316 270 kW for this type of generation. The vast majority (75 240 kW) was installed by Vision Quest Windelectric and Enmax at McBride Lake in Alberta.

In its 2003 budget, the federal government allocated \$2 billion over five years to support the Government's climate change strategy, announced in November 2002. This strategy includes achieving a 25 percent improvement in new vehicle fuel efficiency by 2010; an increase in the use of ethanol in the gasoline supply; development of fuelling technologies and infrastructure for commercialisation of fuel cell vehicles; urban transportation initiatives; and negotiation of voluntary agreements to improve fuel efficiency of goods transportation.

In an action that may hasten the development of fuel-cell based vehicles, in January 2003, U.S. President George W. Bush announced the FreedomCar and Fuel Initiative. In this announcement the government proposed a total of U.S. \$1.7 billion over the next five years to develop hydrogen powered fuel cell vehicles, hydrogen infrastructure and advanced automotive

technologies. Although fuel cell technology for vehicles will not be available to the consumer for some time, hybrid electric vehicles are commercially available. The interest in these vehicles has been limited. In Canada, between 2001 and 2003, less than 200 hybrid electric vehicles were sold. It is expected that over time they will gain greater consumer acceptance.

There are a variety of programs in place to promote energy efficiency at the end-use level and to promote the development and use of alternative and renewable fuels. Natural Resources Canada's Office of Energy Efficiency, in its *Directory of Energy Efficiency and Alternative Energy Programs in Canada*, provides an inventory of programs offered by the federal government, provincial, territorial and municipal governments, and by major utilities and companies across Canada. This directory can be accessed at www.oee.nrcan.gc.ca/neud/dpa.

Safety

A primary aspect of the NEB's purpose is to promote safety of the facilities and activities that it regulates. This is reflected in the first of the NEB's five corporate goals.

The safety risks associated with facilities and activities regulated by the NEB are managed through competent design, construction, operation and maintenance practices. As the designer, builder and operator of a facility, a company has the primary responsibility for safety. However, the NEB plays a significant role in safety by ensuring that a regulatory framework that encourages companies to maintain or improve their safety performance is in place and is linked to public expectations. The Board ensures that safety risks associated with construction and operation of regulated facilities are identified and managed by pipeline companies. The Board does this by:

Goal 1:

NEB
regulated
facilities are
safe and
perceived to
be safe.

- developing regulations and guidelines for the safety and protection of the public and property;
- assessing proposed facility applications from a safety perspective;
- ensuring that appropriate mitigative measures and conditions are in place before granting approval;
- monitoring construction and operations by conducting inspections and audits to verify that regulatory requirements, as well as other codes and standards identified through the application process, have been and will continue to be met;
- investigating failures or incidents that occur, with the intent of preventing similar incidents;
- issuing safety advisories; and
- conducting inquiries into safety issues.

MONITORING COMPLIANCE

Inspections

The NEB monitors the pipelines and facilities it regulates from construction through to abandonment. NEB inspection officers verify compliance with:

- commitments set out in the application and made during a proceeding;
- conditions of the project approval;

- requirements set out in the *Onshore Pipeline Regulations*, 1999 (OPR-99) and other relevant regulations, standards and codes; and
- construction safety manuals, emergency response plans and other relevant documents.

NEB inspection officers also conduct safety inspections of operating pipeline facilities, such as pump or compressor stations and processing plants. These safety inspections are conducted to determine compliance with NEB regulations and the *Canada Labour Code, Part II.* Inspections are also conducted along existing pipeline systems to assess whether third party excavation work is being completed in compliance with the NEB *Pipeline Crossing Regulations.* On frontier lands, the NEB conducts inspections related to geophysical and drilling programs and production operations to verify compliance with the approved program and relevant regulations. Occupational safety and health matters are also addressed during these inspections. The NEB has not issued regulations regarding the construction of international power lines and regulates their construction and operation by attaching conditions to approvals.

The NEB supports a cooperative approach to compliance, working with companies to ensure that safety commitments and requirements are met. The NEB promotes safety training for company and contractor construction personnel to ensure that crews understand project safety requirements and the NEB's responsibility to monitor compliance. Non-compliance situations are handled in the first instance by obtaining an immediate and voluntary correction by the company. If the situation cannot be corrected immediately or if additional information is required from the company, NEB inspection officers may ask for a written assurance of voluntary compliance (AVC). In 2003, the NEB issued 56 AVCs related to safety. NEB inspection officers can also issue a field order when it is believed a situation could compromise safety and that corrections must occur immediately. Field orders can result in suspension of work or require special measures to be undertaken. No field orders were issued in 2003.

The NEB tracks the extent to which companies comply with the conditions on facility approvals and the effectiveness of those conditions in meeting safety requirements. The NEB uses this information to improve the clarity and effectiveness of conditions that it places on its approvals. The Environment and Safety Information Management System (ESIMS) is a tool used by Board staff to track and monitor conditions placed on approvals and mitigative measures for effectiveness and to report on the achievement of desired end results. Information from inspections and audits is entered into ESIMS, providing NEB staff access to relevant information and the ability to analyze trends and performance.

Management System Audits

Similar to inspection activities, the Board conducts management system audits on NEB-regulated facilities to evaluate compliance with the OPR-99. Through interviews with company staff, document review, and on-site verification, auditors evaluate programs and processes that operating facilities have in place to meet the intent of goals within the OPR-99.

During 2003, the Board continued with implementation and development of its safety audit program. The Board's audit of a company's safety program verifies that the company has in

place the following components: safety policy, planning and procedures, and training, as well as implementation of these program elements. The company's approach to evaluating its safety performance and taking necessary corrective action is also included, along with the company's approach to performing a management review of its overall safety program.

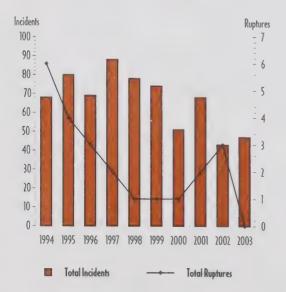
In 2003, seven management system audits were conducted by the NEB. In general, the companies that were audited were found to have taken proactive steps in developing the elements of a safety program. The audits did identify some deficiencies in the implementation of certain safety program elements in some of the audited companies. Plans to correct those deficiencies were subsequently submitted to the Board. The NEB also followed up on audits conducted in previous years by reviewing the corrective actions taken by companies. The purpose of the follow-up was to determine if the action taken was adequate and if compliance to OPR-99 requirements had been achieved, thus completing the audit cycle.

INCIDENT INVESTIGATION

Reportable incidents include those events that may cause:

- death or serious injury to a person;
- a significant adverse effect on the environment;
- an unintended fire or explosion;
- the unintended or uncontained release of low vapour pressure hydrocarbons in excess of 1 500 litres;
- the unintended or uncontrolled release of gas or high vapour pressure hydrocarbons; or

FIGURE 14
Pipeline Incidents and Ruptures 1994 to 2003



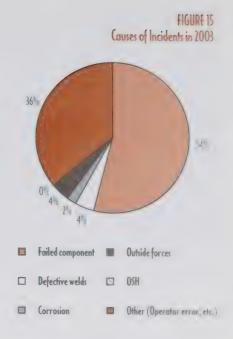
• the operation of a pipeline beyond its design limits as determined under CSA Z662, CSA Z276 or any operating limits imposed by the Board.

Forty-six incidents were reported to the NEB in 2003, compared with 43 in 2002, and 68 in 2001 (Figure 14). In general, when comparing the number of reported incidents in 2002 and 2003 with those of previous years, there appears to be an improvement in the safety performance of companies with NEB-regulated facilities.

Responsibility for investigating a reportable incident rests with the Transportation Safety Board of Canada (TSB) and the NEB. Since the TSB was formed in 1990, it has had exclusive jurisdiction to investigate an incident for the purpose of defining its cause(s) and contributing factors. Therefore, the NEB investigation

works alongside that of the TSB. The NEB, in co-operation with the TSB, investigates all reportable incidents to determine cause, whether any trends are evident, and what action is necessary to prevent similar occurrences in the future. Even minor incidents can indicate the condition of a pipeline or a required improvement in safety programs. The NEB also evaluates the potential effectiveness of corrective actions plans proposed or undertaken by the company to prevent a reoccurrence of a similar type of incident. Figure 15 represents causes of reported incidents that occurred in 2003.

The NEB has a target of zero ruptures on the pipelines it regulates. In 2003, there were no ruptures on NEB-regulated facilities and no injuries resulting from pipeline incidents. However, during 2003, the NEB continued to investigate the causes of the three ruptures that occurred in 2002. In two of the three cases, the investigation was conducted alongside the TSB. In the case of a rupture on Westcoast's sour gas pipeline that occurred on 15 May 2002, the TSB chose not to



investigate the incident. The NEB did, however, investigate the incident during the course of the year, with a report expected early in 2004. Details of ruptures that have occurred on NEB-regulated pipelines, dating back to 1992, are available on the NEB's Web site at www.neb-one.gc.ca.

In 2003, total hazardous occurrences in frontier areas, as defined by the *Oil and Gas Occupational Safety and Health Regulations* under the *Canada Labour Code Part II*, remained at 45, the same level as in 2002. Equipment damage was down from eight in 2002 to zero in 2003. A reduction in disabling injuries, from 13 in 2002 to only three minor injuries in 2003, translated into an overall decrease in frequency of disabling injuries from 2.79 per million hours worked in 2002 to 2.00 per million hours worked in 2003. In addition, a gas flowline was punctured during road construction in a frontier area in December 2003. The resulting gas release did not ignite and there were no injuries or damage to property. The NEB is currently investigating the incident under the *Canada Oil and Gas Operations Act* and under the *Canada Labour Code Part II*.

The NEB's primary role during an emergency situation is to monitor the company's response, ensuring that all reasonable actions are undertaken to protect employees, public safety and the environment. As part of its monitoring role, the NEB verifies that all regulated companies have adequate emergency response plans that mitigate any negative effects resulting from oil spills or natural gas leaks. Emergency response plans and manuals are examined during audit to ensure that appropriate procedures are in place. The NEB also encourages and participates in tabletop and full-scale emergency response exercises sponsored by pipeline companies. In 2003, NEB emergency response specialists participated in six tabletop exercises and two full-scale exercises.

SECURITY

The NEB is of the view that implementing and maintaining appropriate security measures and emergency response programs provides the necessary assurance of public safety and the security of production facilities in the deliverability of Canada's oil and gas. To ensure that appropriate security measures are implemented by companies, the NEB includes an examination of security of companies' operations and pipeline systems as part of its audit program. In general, the results of audits conducted in 2003 show that regulated companies were vigilant in maintaining a high level of security within their pipeline operations.

During 2003, the NEB continued to assist and maintain working relationships with provincial regulators and agencies, federal agencies, U.S. counterparts and pipeline associations in managing security issues which may impact the energy infrastructure. These organizations included: the Office of Critical Infrastructure Protection and Emergency Preparedness (OCIPEP), the EUB, the Royal Canadian Mounted Police, the TSB, the Canadian Association of Petroleum Producers (CAPP), the Canadian Energy Pipeline Association (CEPA), and the U.S. Office of Pipeline Safety.

PERCEPTION OF SAFETY

The NEB continued work on its *Safety Performance Indicators* (SPI) initiative during 2003. The primary objective of the SPI initiative is to evaluate the effectiveness of safety programs among companies regulated by the NEB. The SPI results will be produced on a calendar year basis and will permit bench-marking, trend analysis over time, and allow the NEB to compare Canadian companies with international companies. By identifying areas that show declining performance and, correspondingly, areas where performance is improving, programs can be adjusted to provide the most efficient allocation of safety resources.

The first SPI report, *Focus on Safety - A Comparative Analysis of Pipeline Safety Performance*, was published in April 2003. This report compared benchmark safety data, including fatalities, ruptures, injury frequencies, liquid hydrocarbon releases, gas releases, and damage prevention, between companies with facilities regulated by the NEB and companies regulated by other boards, such as the EUB and FERC. The report is aimed at providing the reader with a clear understanding of the safety performance of the NEB-regulated oil and gas pipeline industry. The report is based upon data received through incident reporting under the OPR-99 and additional data received as part of the SPI initiative. An update to the *Focus on Safety* report is expected in early 2004.

In 2003, the NEB also began posting information on ruptures that have occurred on federally-regulated oil and gas pipelines on its Web site. The information lists reportable rupture events in reverse chronological order dating back to 1992 and includes details of the rupture such as: name of the pipeline and the company who operates it; the date of the incident; nearest population centre; the commodity being transported by the pipeline; the immediate cause and the sub-cause of the incident, etc. It also includes a link to the final TSB report, where available. This information provides a solid basis for assessing the safety of NEB-regulated facilities.

In past years, the NEB has developed a number of Safety Advisories. The Advisories were often developed as a result of the NEB's investigation into pipeline incidents and contain important information related to safety matters. As well, the TSB has developed Safety Advisories that have been received by the NEB. These Advisories are now being placed on the NEB's Web site in the Safety & Environment section for public viewing. The latest Advisory was published on 3 December 2003 regarding several incidents attributed to vibration fatigues failure of piping within compressor stations and pump stations.



As part of its monitoring program, the NEB also tracks landowner complaints. In 2003, the Board received six landowner complaints related to safety concerns regarding NEB-regulated facilities and activities and company compliance with commitments, filings, conditions and regulatory requirements. Five of these complaints were resolved during the year. To assist landowners and the public, the Board released *Pipeline Regulation in Canada: A Guide for Landowners and the Public.* This publication uses the lifecycle of a pipeline to explain, step by step, the Board's role and the landowner's role in the Board's decision making process.

RESEARCH AND DEVELOPMENT

The Board continued to be active in committee work in support of the 2003 edition of the CSA Z662 Standard on Oil and Gas Pipelines. In addition, the NEB supported the development of pipeline regulations through involvement in steering committees of NRCan's Program of Energy Research and Development.

⁹ The Board has tracked landowner complaints since April 1999. By definition, a landowner is any person, group or company who has an interest in or who is directly or indirectly affected by the activities of a federally-regulated facility during the construction and operation of that facility.

Environmental Protection

The NEB ensures that environmental risks associated with the construction and operation of regulated facilities are identified and managed by pipeline companies. The NEB achieves this goal by:

- taking a life cycle approach to its analysis and assessments;
- conducting environmental assessments of proposed projects;
- ensuring that appropriate mitigative measures, approval conditions, and environmental protection plans are in place before granting project approval;
- inspecting and monitoring construction and operation of approved projects to verify compliance with, and assess the effectiveness of, mitigative measures, conditions, and environmental protection plans;
- auditing pipeline companies' environmental protection programs;
- investigating spills and releases with the intent of preventing similar incidents; and
- providing regulatory oversight with respect to environmental issues during the abandonment phase.

When making its decisions, the Board takes into consideration relevant environmental concerns such as: air, land and water pollution; disturbance of renewable and non-renewable resources; species at risk and the integrity of natural habitats; the disruption of land and resource use; and the protection of the rights of those affected by companies' activities in relation to pipelines.

•

NEB regulated
facilities are
built and
operated in a
manner that
protects the
environment
and respects
individuals'
rights.

Goal 2:

ENVIRONMENTAL ASSESSMENT

Conducting environmental assessments is challenging, as the regulatory framework is complex and dynamic. While most NEB-regulated activities fall under the NEB Act, upstream oil and gas activities in non-accord frontier areas are governed by the COGO Act. In addition to meeting environmental and regulatory requirements under these Acts, most projects considered by the NEB must undergo an environmental assessment under the federal *Canadian Environmental Assessment Act* (CEA Act) or, in the Mackenzie Valley, Northwest Territories south of Inuvik, under Part 5 of the *Mackenzie Valley Resource Management Act*. On 30 October 2003, *Bill C-9, An Act to Amend the Canadian Environmental Assessment Act* came into force. This new legislation followed a

mandatory five-year review of the original CEA Act. The NEB is currently developing corporate initiatives related to implementation of Bill C-9 and those provisions that will affect NEB regulatory processes. Other legislation, such as the *Species at Risk Act* (SARA), which came into force in 2003, as well as court decisions are taken into consideration when appropriate.

In 2003, several initiatives were undertaken by the NEB to communicate its information requirements and expectations regarding environmental matters and to improve consistency of environmental assessments. These included the imminent publication of the NEB Filing Manual, the Canadian Energy Pipelines Association (CEPA) Education Series seminars, the introduction of an Environmental Screening Report Template, and a risk assessment approach for environmental assessment.

The NEB Filing Manual will replace the Guidelines for Filing Requirements 1995. It outlines the information the NEB requires to evaluate projects and make informed decisions. Interested parties, including industry, aboriginal groups, various members of the public, and federal departments, were consulted extensively during the 2003 preparation of this document.

The NEB held *Education Series* seminars with CEPA in June and October of 2003. Their purpose was to enhance industry understanding of NEB application requirements, which should lead to more complete applications. Environmental matters were included in these discussions.

The Board also undertook the development and implementation of an *Environmental Screening Report Template* in 2003. The template was designed to provide consistency in the format and approach to environmental screening reports prepared under the CEA Act. The NEB carried out the first environmental screening of a large project using the new template on the proposed EnCana Ekwan project, an



83 kilometre natural gas pipeline located in northeastern British Columbia and northwestern Alberta. The template will be subject to ongoing evaluation, which may result in further refinements to the tool.

Most environmental assessments at the NEB confirm or incrementally improve environmental design aspects of small energy infrastructure projects that are otherwise clearly in the public interest. Certain simple, routine energy projects, identified in various provisions of the CEA Act Exclusion List Regulations and the NEB's Streamlining Order, require only rudimentary environmental assessment. In effect, these regulatory "filters" formally implement a risk-management approach, helping to focus environmental assessment attention and resources on larger or more complex projects with potential for significant environmental effects. In dealing with projects not excluded or streamlined, the Board uses a structured risk-management approach to maintain the regulatory focus on important environmental design issues.

In the fall of 2003, the Board embarked on an initiative to provide other federal departments and agencies with a better understanding of the NEB and its processes when the CEA Act is triggered. The goal was to conduct better environmental assessments by improving working relationships and facilitate coordination and effective federal authority involvement in NEB processes. Through this initiative, the Board also received feedback from federal departments on their experiences in working with the NEB. The Board will use the results of this initiative to identify improvements and implement changes to its environmental assessment processes.

Following the approval of the GH-2-2002 Grizzly Extension Pipeline Project, separate "review and learn" sessions were convened with the federal agencies that had been involved (in Vancouver) and with the applicant (in Calgary). At the meetings, participants discussed shortcomings of the project review process and made recommendations for improvement of future processes. Most discussions focused on the need for more effective and timelier communication amongst the various participants in the comprehensive study process. The use of technical conferences was identified as a possible solution to most of the concerns raised. Recent changes to the CEA Act and modified internal processes at the NEB should help bring about improvements in the areas identified.



MONITORING COMPLIANCE

In addition to monitoring regulated facilities from a safety perspective, the NEB conducts inspections and audits in the context of environmental protection from the construction phase through to abandonment.

Inspections

As with safety, the NEB supports a cooperative approach to compliance monitoring, working with pipeline companies to ensure environmental protection. NEB inspection officers monitor construction to verify compliance with the conditions of the project approval and the

commitments set out in the company's environmental protection plan and its application. NEB inspection officers also conduct post-construction monitoring of operating facilities to evaluate the success of reclamation and other mitigative measures and to verify that the environment, the public and property are protected. The NEB also conducts environmental inspections related to geophysical and drilling programs and production operations in frontier lands to verify compliance with the approved program and relevant regulations. In 2003, NEB inspection officers received 19 AVCs related to environmental protection.

The NEB tracks environmental conditions placed on approvals and mitigative measures for compliance, their effectiveness in contributing to the goal of environmental protection, and the achievement of desired end results (Figures 16 and 17). For projects approved in 2003, where information is available through inspections or post-construction monitoring reports,

94.4 percent of environmental conditions were found to be effective in achieving their desired outcomes. Two conditions, or 5.6 percent, did not achieve their desired end results due to a lack of clarity in the written condition in one case, and non-compliance in the other.

The NEB is committed to improving the clarity of its environmental conditions to eliminate the possibility of misinterpretation of the desired end result by companies. The NEB will continue to monitor condition compliance for those projects that are not yet complete and for which information is not yet available, or where the post-construction monitoring reports have not yet been filed, to ensure that all required conditions will be fulfilled.

Management System Audits

In 2003, seven management system audits were conducted, of which five included an evaluation of company environmental protection programs. Generally, the companies audited were found to have a strong commitment towards environmental protection with an environmental policy in place and supporting environmental programs. Deficiencies were noted with regard to the development of formal processes for the identification and evaluation of environmental aspects, the delivery of appropriate environmental training programs, and the implementation of company internal audit programs. NEB auditors and inspection officers also followed up on corrective actions completed in response to previous audits and evaluated whether the corrective actions taken were adequate, thus completing the audit cycle.

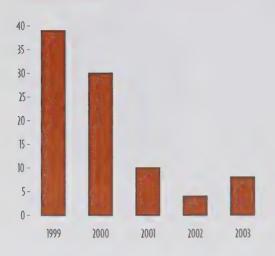
SPILLS AND RELEASES

Spills and releases are of concern to the Board. Depending on the nature of the product that is released, spills and releases can result in environmental damage. Twenty-six gaseous and liquid hydrocarbon spills were reported in 2003. This is down from 33 spills and releases reported in 2002, and 46 in 2001. There were 12 reportable spills of liquid hydrocarbons greater than 1 500 litres in 2003. All spills were contained within compressor station sites, pump station sites, gas plants, or terminals. There were no incidents that resulted in liquid product migrating off company property. In frontier areas, reportable spills were up from 24 in 2002 to 42 in 2003 due to increased levels of exploration and production activities. The NEB's investigation process for hydrocarbon spills includes follow-up to verify that site remediation is carried out as required by the NEB and prescribed in the company's remediation plan.



FIGURE 1

FIGURE 18
Resolved Landowner Complaints Regarding Environmental
Protection and Rights of Those Affected by NEB-Regulated
Facilities and Activities



PROTECTING THE RIGHTS OF THOSE AFFECTED

As a tribunal that is charged with making decisions in the Canadian public interest, the NEB is committed to protecting the rights of those affected by proposed and existing energy facilities falling within its jurisdiction. As one of its measures to meet this commitment, the NEB ensures that affected stakeholders are engaged with industry through Early Public Notification and ongoing consultation. For approved facilities, the NEB audits companies to ensure they are conducting effective emergency response, public awareness and continuing education programs at the local level.

As with safety, the Board also tracks landowner complaints related to environmental issues. In 2003, the Board received 27 landowner complaints. Ten of these related to concerns regarding the protection of

the environment, the rights of those affected by NEB-regulated facilities and activities, and compliance with commitments, filings, conditions and regulatory requirements. Of these ten, eight were resolved in 2003.

In October 2003, the Government of Canada announced its plans to develop a process for Crown consultation activities where Aboriginal or treaty rights may be affected by NEB-regulated projects. The Government stated that it would request input from interested parties on the design of the process and, once the design was complete, the process would be implemented on NEB-regulated projects as a two year pilot project. The NEB will continue to support this initiative with a view to developing a workable framework for Aboriginal consultation within the context of the Board's mandate.

RESEARCH AND DEVELOPMENT

The Environmental Studies Research Funds (ESRF) provides funding for environmental and social projects pertaining to decision-making in regard to petroleum exploration, development and production activities on frontier lands. The NEB chairs and provides technical and financial resources for the ESRF Management Board, which consists of industry, government and members of the public. In 2003, the Management Board approved ten new studies, continued to provide funding to others that were previously approved, and participated in updating the CSA Standard for Offshore Structures. ESRF reports can be ordered through the ESRF Web site at www.esrfunds.org.

Economic Efficiency

The Board's third corporate goal is to promote the benefits of economic efficiency in the energy sector. The Board has an impact on economic efficiency in three ways:

- the decisions it renders:
- the energy market information it provides to Canadians; and
- the efficiency and effectiveness of its regulatory processes.

Several surveys conducted in 2003 provided external feedback indicating a desire for more leadership by the Board on regulatory and market analysis issues. As a result, the Board focused on expanding the level of consultation with stakeholders in striving to meet its Goal 3 objectives.

Goal 3:
Canadians
derive the
benefits of
economic
efficiency.

REGULATORY DECISIONS

Through its regulatory decisions on applications for new or modified pipeline facilities and for tolls and tariffs, the Board strives to promote an efficient natural gas and oil pipeline infrastructure that meets the requirements of shippers at reasonable tolls, while providing an opportunity for pipeline companies to earn a fair return on capital invested. The Board also ensures that exports of natural gas, oil, natural gas liquids (NGLs) and electricity do not occur to the detriment of Canadian energy users by satisfying itself that Canadians have access to domestically-produced energy on terms and conditions that are at least as favourable as those available to export buyers. A summary of Board Decisions rendered in 2003 is provided in the *Applications Highlights* section.

ENERGY MARKET INFORMATION

The Board has an important role in providing independent information and analysis on energy markets to Canadians. In 2003, the Board conducted a third-party survey of its role in providing energy market information. The feedback indicated that the Board's information and analyses are highly valued for their accuracy, quality and their independent objective viewpoint. Canadians who are making investments that will determine their future fuel use patterns have said that they value the Board's market assessments as an important input to their planning.

Energy Market Reports

The Board periodically produces specific reports, or *Energy Markets Assessments* (EMAs), as part of its regulatory mandate to monitor the supply of energy in Canada and the demand for Canadian energy in domestic and export markets. In 2003, the Board issued three EMA reports.

The first report, Canadian Electricity Exports and Imports: An Energy Market Assessment, examined recent trends in electricity exports and imports, associated revenue and pricing, and implications of this trade from a provincial standpoint. It found that international trade with the U.S. provides important advantages to both Canadians and Americans in terms of optimizing the use of their systems and providing enhanced reliability.

The second report, *The Maritimes Natural Gas Market - An Overview and Assessment*, provided an assessment of the functioning of the natural gas market in the Maritimes and discussed the issues facing this market. The report concluded that Maritimes gas buyers face a number of challenges that are unique to the region but that the market is functioning reasonably well, given the early state of its development.

The third report, Short-term Natural Gas Deliverability from the Western Canada Sedimentary Basin 2003-2005, provided an outlook for natural gas production for the period 2003-2005. The Board projected that, with the expected high levels of drilling activity, deliverability from the WCSB will be maintained near current levels of approximately 450 million cubic metres (16 billion cubic feet) per day over the next two years.

The Board also issued a major report on its long-term outlook for Canada's energy future, entitled *Canada's Energy Future: Scenarios for Supply and Demand to 2025*. Using a scenario approach, the report examined the future of energy within the context of environmental, technological and societal trends. Among other things, the report concluded that Canada will continue to depend primarily on fossil fuels to meet its energy needs over this time period. There are a number of constraints in the Canadian economy, including climate, urban design, lifestyle, and the nature of the existing building stock that limit the rate at which new technologies can be adopted. The report also found that a key uncertainty is the future availability and price of natural gas. A primary objective of the report was to stimulate informed discussion among Canadians about energy choices. To follow up, the NEB will conduct country-wide roundtable discussions on natural gas market issues.

The Board also compiles several statistical reports related to its regulatory role in the oil, gas and electricity industries. Data is compiled on a monthly basis and annual summaries, as far back as 1985, are available. Subject areas include: natural gas exports, imports, volumes and prices; exports of propane and butane; crude oil and petroleum product exports; light and heavy crude oil export prices; crude oil supply and disposition; and imports and exports of electricity. These reports are available on the Board's Web site at www.neb-one.gc.ca.

Functioning of Canadian Energy and Transportation Markets

The Board monitors energy markets to ensure that they are functioning so that Canadian energy users have access to Canadian energy on similar terms and conditions as are available to export buyers. With respect to natural gas, it would be expected that the commodity price, for example at the Alberta border, would be essentially the same for all gas buyers, whether

domestic or foreign. Figure 19 shows natural gas prices at export points in eastern Canada netted back to the Alberta border compared with prices at AECO-C, the main pricing point for natural gas in Alberta, with transportation cost to the Alberta border added on.

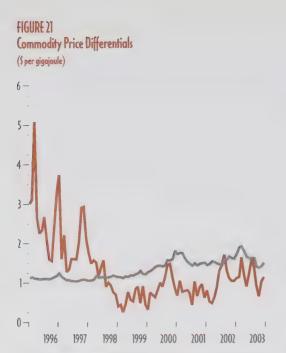
The figure shows that prices at AECO-C are almost always equal to or lower than the equivalent prices at export points and demonstrate that, for gas purchased in Alberta, Canadians are paying no more for natural gas than are export customers.

The Board is similarly tracking prices in the British Columbia gas market and the Maritimes gas market. There are some challenges in both of these markets, mainly related to the relatively small number of buyers and sellers, which the Board is currently studying.

With respect to crude oil, a similar relationship exists between domestic and export prices (Figure 20). The chart demonstrates that Canadians have access to Canadian crude oil on price terms at least as favourable as export customers. The Board also monitors electricity markets, although this is somewhat more difficult due to the more regional nature of electric power markets, and the lack of functioning open markets in many parts of the country. However, prices paid by residential customers in Canada are generally considerably lower than in nearby cities in the United States.

In order for energy markets to work well, there has to be adequate transportation capacity to move crude oil, refined products, natural gas and natural gas liquids from producing areas to the end-users who require them. When there is adequate capacity between two pricing points, the prices will be "connected" and the price differential will be less than or equal to the cost of transportation between the two points.





Alberta to Dawn + Fuel (TCPL)

Figure 21 shows the basis, or commodity price differential, between the Alberta border and the Dawn delivery point compared with the TransCanada firm service toll between the two points, including fuel costs. The fact that the price differential is consistently lower than the firm service transportation toll demonstrates that there has been adequate capacity in place since the fall of 1998. The Board tracks similar charts for other pipeline corridors within Canada and is satisfied that there is generally adequate natural gas pipeline capacity in place.

With respect to oil pipelines, lack of adequate pipeline capacity is experienced when shippers nominate more oil or oil products than the pipeline can carry. This normally results in a situation known as apportionment, under which each of the shippers that nominates volumes is "apportioned" a share of the available capacity.

In 2003, Enbridge operated at approximately 75 percent of total capacity, with the actual throughput averaging 218 000 m³/d. U.S. regulators placed a pressure restriction on the U.S. portion of Enbridge's Line 4, which runs from Edmonton to Superior, Wisconsin after a rupture in July 2002 in the U.S. portion of the line. This restriction, which was in effect until December 2003, reduced the volumes of heavy crude oil that could be shipped through that line. Enbridge's Line 9, which transports oil from Montreal to Sarnia, operated at maximum capacity for most of the year. Apportionment, starting in March 2003, was calculated at five percent and reached 19 percent by September 2003, where it remained for the rest of the year.

Dawn - Alberta Basis

The Terasen pipeline system, from Edmonton to Vancouver, operated at 88 percent of its light capacity during 2003. Increased shipments of heavier crude oil, as well as nominations to the Westridge Dock, contributed to several months of apportionment. Express Pipeline Ltd. continued to operate at almost 100 percent of capacity in 2003.

Propane exports to the U.S. Midwest were reduced due to a flow restriction related to a fire caused by a leak on Cochin's U.S. pipeline in July 2003. Consequently, since September 2003, the Cochin system has been in apportionment along both the Canadian and U.S. sections. The flow restriction and apportionment situation is expected to continue until late 2004.

The high rate of capacity utilization on a number of these lines, combined with growing production from the oil sands and the incidence of apportionment, may indicate that expansions of oil pipeline capacity need to be seriously examined.

REGULATORY EFFICIENCY

The Board strives to make its regulatory processes as efficient and effective as possible. While facilitating market-based solutions will still be a large component of its regulatory strategy, the Board recognizes that regulation will play an important role for some time to come. In 2003, the Board focused its efforts on providing smart regulation, the objectives of which are embodied in several themes:

- goal-oriented regulation that allows regulated companies some flexibility on how they meet the desired outcomes;
- providing clear, predictable and streamlined regulatory processes and decisions; and
- by effectively partnering with other regulatory agencies to improve processes and efficiencies.

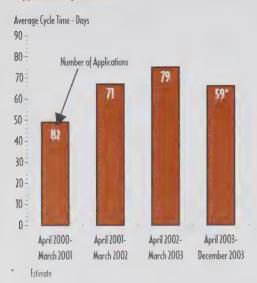
Smart Regulation

As stated previously, smart regulation was set out in the 2002 *Speech from the Throne* as a key strategy to maintain a Canadian advantage in a globally competitive world. The NEB continues to develop its own smart regulation strategy, including the provision of effective, efficient and predictable regulation.

Many energy companies operate in an international environment, in which they must decide whether to invest in Canada or in opportunities in other countries. The cost of regulatory compliance is also an important consideration for smaller companies with a domestic focus. The clarity, predictability and speed with which the regulatory regime operates in respective environments are important considerations for companies when making their investment decisions. Given these realities of the market environment, the Board's objective is to provide efficient and timely turnaround time for applications that come before it, while diligently fulfilling its responsibility to protect the public interest. The Board ensures that its application processes are efficient by internally reviewing its processes, engaging in dialogue with stakeholders, clarifying the Board's processes and expectations, implementing new approaches to regulation, negotiating with other agencies to ensure that regulatory processes are harmonized to minimize duplication, and by pro-actively preparing for major applications.

The Board's Section 58 Streamlining Order permits companies to undertake, without applying for Board approval, certain routine facilities projects that have insignificant environmental impact, occur on company property, and do not result in safety or third party concerns. A revised Section 58 Streamlining Order was issued in late 2002 to clarify the order, modify reporting requirements and exclude an increased number of routine projects from the Board's application process. Through these and other initiatives, the Board has seen its Section 58 cycle times improve (Figure 22). A review of the Streamlining Order, with the incorporation of the proposed new Exclusion List Regulations amendments under the CEA Act, is planned for 2004.

FIGURE 22 Cycle Times for all Non-Hearing Facility Applications by Fiscal Year



NEB Filing Manual

The Board is nearing completion of its project to conduct a comprehensive review and revision of its *Guidelines for Filing Requirements* (GFR). The GFR were developed to assist companies in their preparation of applications. The objective of this project is to provide applicants further clarity and understanding of the Board's expectations with respect to application requirements, and thereby reduce the number of Information Requests required and reduce application cycle times. The final *NEB Filing Manual*, which will replace the GFR, is expected to be published in the spring of 2004.

Guidance Notes for Pre-Application Meetings

Draft guidance notes for pre-application meetings have also been developed to facilitate communication

between Board staff and outside parties where appropriate. The goal is to provide a helpful tool to project proponents who wish to meet with the Board prior to submitting an application, in order to prepare complete applications containing the information required for expeditious review. The Board encourages face-to-face pre-filing meetings with staff when applicants have questions about filing requirements in the context of their specific application.

Appropriate Dispute Resolution (ADR)

The Board continuously seeks ways to improve the efficiency and effectiveness of its regulatory processes. The Appropriate Dispute Resolution (ADR) program was developed in this regard. Under development since early 2002, the collection of ADR tools and techniques provides a means to resolve issues and differences among parties as an addition to our current regulatory processes. In July of 2003, the Board released its *Guidelines for Appropriate Dispute Resolution*. During 2003, the program was used to address four landowner issues and to facilitate a workshop for toll and tariff matters. The ADR guidelines are available on the Board's web site at www.neb-one.gc.ca.

Effective Cooperation

Energy projects often involve several jurisdictions, and where jurisdictions overlap, such as in the case of a potential northern pipeline proposal, the Board is working with a number of regulatory agencies to ensure that environmental assessment and regulatory issues are dealt with in a coordinated manner. Coordination efforts have been focused on eliminating duplication while maintaining or enhancing meaningful public engagement.

On an international level, the Board continues to meet regularly with the FERC and the Mexican national energy regulator, the Comisión Reguladora d'Energía. In September 2003, a

trilateral cooperation agreement was signed in which each regulator committed to regular meetings to share perspectives on regulatory approaches and to work to eliminate inconsistencies in regulatory approaches, to the extent that is possible within the respective legislative mandates.

The Board is also working closely with the Canadian Environmental Assessment Agency with a view to improving the environmental assessment process. The recent passage of *Bill C-9*, *An Act to Amend the Canadian Environmental Assessment Act* provides some opportunities to work with the Agency to identify process improvements.

Engaging Canadians

Ensuring effectiveness of engagement is seen as being vital to the Board's decision making process as it ensures fairness and completeness. As well, the act of providing the public with a forum in which to be heard, and providing the opportunity to be involved, speaks to protecting the rights of those affected by Board decisions. This is also part of the Board's desired outcome as reflected in Goal 2.

During 2003, the NEB actively engaged the public in many of its processes, as demonstrated by the large number of people who took part in Board-initiated consultations and public information sessions. This was true for the six-city cross country roundtable sessions held to consult on the *Supply and Demand Report*, the regional consultation that took place to develop an EMA on the functioning of the natural gas market in the Maritimes, and the open houses that took place in seven Canadian cities to discuss the proposed new *Damage Prevention Regulations*. Interest in the Board's processes was demonstrated by the number of individuals and groups who participated in recent hearing and pre-hearing activities.

The increased number of hearing participants presented challenges that the Board had not previously faced. The Board recognized this as being indicative of a new type of hearing and took the opportunity to reflect upon its public engagement efforts during its strategic planning sessions in September 2003. After re-evaluating its direction with regard to public engagement, the Board decided to shift from evaluating its general practice in the area of engagement to focusing on the effectiveness of the engagement itself.

The GSX Canada Pipeline hearing was an example of public participation by a large number of intervenors. At the information sessions held prior to the hearing, interested parties were informed of the NEB process and how to participate in the hearing. In turn, they provided information about their concerns which helped in the planning of the hearing process. In all, more than 400 people are estimated to have attended these sessions which took place between October 2001 and the commencement of the oral hearing in February 2003. Regular procedural updates were also issued frequently throughout the hearing process. These informational activities helped to ensure that interested parties were well informed and assisted in the efficiency of the hearing process.

The SE2 hearing was another example of public participation by a large number of intervenors. In addition to about 400 registered intervenors, there were more than 22,000 letters of comment received by the Board. In order to familiarize participants with Board processes, nine days of public information sessions were held. The Board also presented intervenors with options as to their chosen level of participation. In order to meet the challenges posed by having a large number of

Goal 4:
The NEB
meets the
evolving
needs of
the public
to engage
in NEB
matters.

intervenors and to allow reasonable opportunity for intervenors to present their views, the Board sat evenings and Saturdays. Twenty-eight intervenors gave oral presentations and 88 provided oral final arguments.

BILLIDING INTERNAL CAPACITY

The Board believes in the importance of being a learning organization and promotes a shared learning process. To this end, the Board provides skill enhancement opportunities to enable employees to undertake effective and appropriate public engagement. The Board recognizes that effective participation and consultation start within the organization and encourages internal consultation among teams and business units within the organization.

Learning circles and best hearing practices

During 2003, post-hearing survey results assisted the NEB in developing appropriate actions to enhance the hearing process and participants' experience with the process. For instance, the feedback the Board has received has resulted in:

- enhancements to electronic filing;
- consideration of a venue change for an upcoming hearing; and
- examination of transcript quality, interpretation quality, the hearing room and access to exhibits.

The Board also initiated an internal, electronic learning circle in May 2003, thanks to the efforts of the Board's Aboriginal Engagement group. On a weekly basis they issue articles and stories relating to Aboriginal culture and practices. This electronic information series has covered topics such as land claims, misconceptions about Aboriginal culture, census information, and Aboriginal symbolism.

Dealing with disputes

Following consultation with industry, landowners, government and other interested parties, the Board released the guidelines for its ADR program in July 2003. The guidelines are intended to be flexible with parties participating in creating a resolution process that meets their unique needs. During 2003, the ADR program was used in four landowner issues and in one toll workshop.

Throughout 2003, the Board also participated in the Company to Company (C2C) Dispute Resolution Task Force. The Task Force was initiated by energy industry representatives to promote more effective and efficient ways to manage and resolve conflicts between companies. As a participant, the Board is contributing to the development of recommendations and tools that will support productive resolution of conflict in the energy sector. The Task Force report is scheduled for release in 2004.

Developing new approaches

During 2003, the Board adopted a new approach for gathering and storing information on Aboriginal Communities. A profile of Aboriginal communities affected by NEB-regulated pipelines and a database of contacts for relevant Aboriginal associations was developed for internal use as part of the Board's efforts toward building internal capacity.

In 2003, the NEB and CEPA launched *Education Series* seminars to enhance understanding of Board processes and information requirements, thereby leading to more complete applications and reduced cycle times. The first meeting of this series, held in June 2003, focused on NEB processes and an assessment of gaps historically seen in applications. The focus of the second meeting in the series, held in October 2003, was on consultation with Aboriginals and landowners from both an NEB and industry perspective.

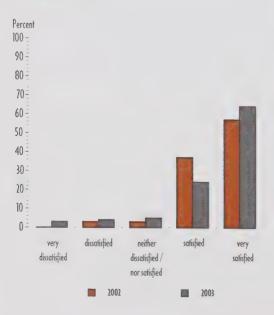
Understanding Public Engagement Needs

Understanding how the public can and wants to be involved with the Board and its processes assists the Board in offering effective public engagement options. The Board uses the following practices to gain an understanding of the public's engagement needs:

Feedback

The Board began the year by inserting reader comment cards in the 2002 *Annual Report*. The self-addressed postage-paid card asks several questions regarding readability of the document, relevance of the information and the reader's overall satisfaction with the publication. The comment card was also placed in the *Supply and Demand Report* and the Board's general *Information Series*. Feedback to date has been compiled and shared internally to assist in planning future versions of these publications.

FIGURE 23
Overall, how satisfied were you with your interaction with the NEB?



As proven in the past, the Board's post-hearing surveys were a valuable way to collect participants' feedback on the Board's hearing process. The NEB now shares the consolidated results of the post-hearing surveys (for the fiscal year) on its Web site at www.neb-one.gc.ca. The results and accompanying comments have also been shared internally. Comments received from Board hearing participants have resulted in ongoing enhancements to electronic filing and hearing processes as mentioned previously in the *Learning Circles and Best Hearing Practice* section.

Asking for feedback through satisfaction surveys is becoming standard practice at the Board, as shown in the variety of activities in which it was used throughout 2003. The Board obtained feedback from participants in the *Oil Sands EMA* consultations, the *Supply and Demand Report* consultations, the proposed new *Damage Prevention*

Regulations open houses and the 2003 NEB Workshop.

Board Visits

Board Members periodically visit NEB-regulated energy facilities in different regions of Canada to gather first hand information about energy matters. In 2003, Board Members visited a gas plant and various pipeline right-of-way locations in the Ladyfern region of north-eastern British Columbia. At the Canadian Natural Resources Limited's (CNRL) gas plant, Board Members were briefed on gas plant design, operation and safety procedures. Board Members observed cumulative forest disturbance related to gas exploration and production, and viewed vegetation recovery and other environmental aspects of pipeline right-of-way design in the western boreal forest.

REMOVING BARRIERS TO PARTICIPATION

In June 2003, the Board released the EMA entitled *The Maritimes Natural Gas Market - An Overview and Assessment* in Fredericton, New Brunswick. A technical briefing by Board staff was held at the time of the release, with interested persons and the media invited to access the technical briefing by telephone.

The Board used a video conference and Web-based simultaneous broadcast to gather more information about a Trans Northern application. This was found to be an efficient way of interacting with the applicant as well as interested parties.

The Maritimes Natural Gas Market

An Overview and Assessment

In December 2003, the Northern Gas Project Secretariat opened in Yellowknife, NWT. The role of the Secretariat is to provide information management, logistics, communications and administrative support to the public hearing panels for the environmental impact assessment and regulatory review of a proposed Mackenzie Valley Gas Project. The opening of the Secretariat is a result of the Cooperation Plan for the Environmental Impact Assessment and the Regulatory Review of A Northern Gas Pipeline Proposal Project Through the Northwest Territories (June 2002). The Cooperation Plan coordinates processes between regulators and government departments in anticipation of a northern pipeline application. The Board participated in the Cooperation Plan and in the opening of the Secretariat.

The Board developed two information videos in 2003. The first is a general video on the roles and responsibilities of the NEB and the second is an educational video on the hearing process. These are additional tools that can be used to assist in familiarizing participants with the NEB and the hearing process itself, making the Board a more accessible entity. The videos will be

available in 2004. For a copy, please contact the publications officer at publications@neb-one.gc.ca or call (403) 299-3562.

In 2003, the Board released *Pipeline Regulation in Canada: A Guide for Landowners and the Public.* This publication uses the lifecycle of a pipeline to explain, step by step, the Board's role and the landowner's role in the Board's decision making process. A copy of this guide can viewed on the NEB Web site at www.neb-one.gc.ca or by contacting a Publications Officer at publications@neb-one.gc.ca.

INVOIVING CANADIANS

Consultation has been used extensively throughout 2003 and has resulted in meaningful engagement with industry and non-industry stakeholders. As well, NEB-hosted workshops focused on sharing information with the members of the public and industry, and facilitated discussion of common interest issues.

Consultations

Over the past year, the Board continued with several series of consultations initiated in 2002. This included meeting with several groups to discuss the proposed *NEB Filing Manual*. These groups included Aboriginal groups in Edmonton, Sarnia, Ottawa, Fredericton and Truro, other government departments, and the World Wildlife Fund, as well as industry groups and representatives. Public consultations were also held in six cities across Canada to obtain comments on a draft of *Canada's Energy Future: Scenarios for Supply and Demand to 2025*. As well, the NEB's Market Monitoring Team returned to the Maritimes in 2003 to meet with stakeholders in the wholesale natural gas market to discuss access to supply, market and transportation issues with key players in the region's natural gas market, and to gather information for the EMA report *The Maritimes Natural Gas Market - An Overview and Assessment*. Each of these consultation series sought feedback which was taken into consideration when completing the final documents.

The NEB also regularly meets with the Cost Recovery Liaison Committee, a joint committee of industry representatives subject to cost recovery charges and NEB staff. The mandate of the committee is to discuss NEB cost recovery methodology and regulations, and to provide a



forum to explain the NEB's financial statements, planned expenditures, goals and initiatives. The committee meets twice a year.

Workshops

E-filing (June 2003) - The purpose of this one-day technical meeting was to exchange ideas on how to improve the Board's e-filing services. E-filing allows applicants and intervenors the option of submitting regulatory documents electronically and provides all Canadians with the opportunity to view these documents on-line. In 2003, 2 146 regulatory documents were submitted using the e-filing system. In June 2003, users of the

Board's e-filing services were invited to engage in a discussion about benefits of the current e-filing system and where improvements could be made. Transcripts of the meeting were sent to participants and are posted on the Board's Web site. As a result of the suggestions made by e-file users, the Board plans to make several improvements to the system including: adding online forms to file Interventions and Letters of Comment; revising placeholders so that they are easier to identify and create; displaying filings in reverse chronological order; and improving user interface.

TransCanada Toll and Tariff Matters (October 2003) - The Board facilitated a workshop in Toronto with TransCanada and its shippers. The purpose of the workshop was to identify the issues that were raised by an application for a new receipt and delivery point, and to discuss the possible process options for resolving these issues. A facilitator's report was produced which included the issues raised by participants and preferences for process steps for the application.

2003 NEB Workshop (December 2003) - The NEB held its second workshop in Calgary. The workshop focussed on four themes: pipeline integrity; environmental protection; regulatory initiatives and safety. The goals of the workshop were to:

- encourage direct interaction between NEB staff and workshop participants:
- provide clear deliverables where practical;
- structure meaningful and constructive discussions between NEB staff and representatives from stakeholder groups; and
- improve working relationships by explaining NEB expectations, processes and procedures.

With more than 300 attendees, feedback from participants was largely positive with more than 96 percent of post-workshop survey respondents indicating they were satisfied with the workshop. Eighty-eight percent of attendees felt the workshop was worthwhile and 82 percent indicated they plan to attend the next workshop, currently scheduled for 2005.

COMMUNICATING WITH CANADIANS

Web site

During 2003, the Board continued increasing its Web site accessibility for Canadians by providing easier navigation and readability for those visually impaired and making Board documents more readable in most Web browsers. The Board also continued to provide online broadcasts of its hearings and made transcripts of the hearings available on its Web site.



The Board also worked on providing easier means for stakeholders to forward standard information. This was achieved by the Contact Management Group who developed an on-line change of contact information form. This can be accessed from the Board's home page and is to be used to change contact information for those receiving non-regulatory documents and information.

News Releases

The Board issued 46 news releases in 2003. The nature of the releases has included information on public hearings, public information sessions, Board decisions on applications, invitations to consultations and publication releases.

Toll-free number (1-800-899-1265)

The Board's toll free number is another channel by which Canadians can contact the NEB. In 2003, 5 240 calls were received on the toll free line, an increase of approximately 240 calls from 2002.

Effective Leadership and Management

In 2003, a fifth corporate goal was added to highlight the NEB's commitment to developing a learning environment and the prudent management of resources, including financial, human resources, and information resources. The Board's program for management improvement, the IMProve (Improved Management Practices) project, is modeled after the government-wide Modern Comptrollership initiative.

Developed as a progressive step in a continuum of management improvement initiatives, Goal 5 integrates planning and reporting activities related to human resources, finance, information technology (IT), information management, training and performance management. It also serves to integrate processes for applications, inspections, and audits to promote enhanced coordination and knowledge and information sharing across the NEB. Goal 5 provides a focus on accountability leading to effectiveness and efficiency of leadership and management across all NEB Goals.

In order to measure the NEB's performance in relation to Goal 5, the Board began developing performance measures related to leadership, human resources management, resources, and information management during 2003. Benchmarking is planned in the future.

NEB's Expenditures and Financial Reporting

The NEB's expenditures and staff levels for the last eight fiscal years are shown in Table 10. Funding for the NEB is provided by the Government of Canada. The government, in turn, recovers costs from the companies that the NEB regulates. Since 1991, up to 90 percent of the NEB's operating costs have been recovered from the regulated industries. Additional information on budgets and plans may be found in the NEB's 2003-2004 Main Estimates, Part II and the 2003-2004 Estimates Part III - Report on Plans and Priorities, both of which are available on the NEB's Web site.

To meet Treasury Board's fiscal year end requirements and the cost recovery calendar year requirements, the NEB prepares two sets of annual financial statements. The first set is prepared on a fiscal year period ending March 31 using the accrual basis of accounting in accordance with Treasury Board of Canada Accounting Standards based on Canadian Generally Accepted Accounting Principles. This set of financial statements, which form part of the Public Accounts of Canada, consists of a Statement of Financial Position, Statement of Operations, Statement of Cash Flow and accompanying notes. The Office of the Auditor General determines when or if it will audit the NEB's Public Accounts financial

Goal 5:
The NEB
is effective
in leading
its people
and
managen
its

resources

statements in order to express an opinion on the consolidated statements of the Government of Canada.

The second set of financial statements, for cost recovery purposes, is prepared on a calendar year period using the accrual basis of accounting in accordance with Treasury Board of Canada Accounting Standards based on Canadian Generally Accepted Accounting Principles. This set of financial statements consists of a Statement of Financial Position, Statement of Operations and Deficit of Canada, Statement of Cash Flows and accompanying notes. These statements are audited by the Office of the Auditor General on an annual basis and are used as the basis for determining the costs recovered in accordance with the *National Energy Board Cost Recovery Regulations*.

Further information on either set of financial statements can be obtained by contacting the NEB. The consolidated financial statements for the Government of Canada can be found at www.pwgsc.gc.ca/recgen/text/pub-acc-e.html. The audited financial statements for cost recovery purposes can be located on the Board's Web site at www.neb-one.gc.ca/pubs/index_e.htm.

NEB AS A SEPARATE EMPLOYER

The NEB has been a separate employer since December 1992. As a Public Service *separate* employer, the authority to carry out personnel management functions has been transferred from Treasury Board to the Chairman of the NEB. This means that the NEB is solely responsible for creating and maintaining its own classification system, developing its own human resources management policies and practices, and negotiating its own collective agreements and pay plans.

TABLE 10 Historical Expenditures and Staffing

Fiscal Year (April 1 to March 31)	Expenditures (\$000)	Full-time Equivalents
1996 - 1997	26 855	m
1997 - 1998	28 048	264
1998 - 1999	53 187 ^(a)	277
1999 - 2000	26 900	286
2000 - 2001	26 216	289
2001 - 2002	28 836	281
2002-2003	31 232	287
2003 - 2004	31 315 ^(b)	297 (b)

⁽a) In 1998 the NEB made payments of \$22.2 million for out-of-court settlements with the energy industry relating to relocation costs of the NEB from Ottawa to Calgary.

A separate employer is not the same as a "private" employer. Like other federal government departments, the NEB continues to be bound by federal legislation. The NEB promotes and recruits personnel under the Public Service Employment Act. Financial matters are governed by the Financial Administration Act as administered by Treasury Board. Employer and employee relations are governed by the Public Service Staff Relations Act and the NEB is subject to public service reductions and public service wage restraints. The NEB is also subject to the provisions and standards set out in the Official Language Act and Employment Equity Act.

⁽b) Estimate.

A Wealth of Experience

As of 31 December 2003, Board membership consisted of eight full-time members who well appointed based upon their wide range of expertise in energy matters and public policy. Our multi-disciplinary team reflects the diverse perspectives and the practical knowledge require for making decisions on energy projects in the interests of Canadians and for advising the Government of Canada on energy issues. Members have private and public sector experience in economics, engineering, environment, finance, law, public participation, safety and selection



Top left to right: Gaétan Caron, Jean-Paul Théorêt (Vice-Chairman), John S. Bulger, Rowland J. Harrison Bottom left to right: Deborah W. Emes, Kenneth W. Vollman (Chairman), Elizabeth Quarshie, Carmen L. Dybwad

Kenneth W. Vollman, Chairman

A native of Saskatchewan, Mr. Vollman has a Master's degree in Mechanical Engineering Itimithe University of Saskatchewan and is a member of the Association of Professional Engineers of Alberta. Mr. Vollman has spent his career working in the energy sector, gaining his practical experience with oil and gas production while working in the private sector. During his career at the NEB, Mr. Vollman gained experience in energy supply and demand, pipelines, energy regulatory issues and management. In 1998, he was designated as Chairman after serving as a Member and Vice-Chairman. Over the past 35 years, Mr. Vollman has authored and presented numerous papers at Canadian and international conferences.

Jean-Paul Théorêt, Vice-Chairman

A native of Quebec, Mr. Théorêt has a diverse educational and professional background in business, economics, law and energy regulation. Mr. Théorêt was a Commissioner of the Régie de l'énergie in Quebec for eight years. He was elected to the Quebec National Assembly in 1985 where he served as Parliamentary Assistant to the Minister of Industry, Trade and Technology, as well as Vice-Chairman of the Committee on Labour and the Economy. Mr. Théorêt has 30 years of business experience, serving as an Executive Vice President of a large food distribution company and owner of food stores in Quebec. A member of the NEB since 1999, he was designated Vice-Chairman in 2002.

Rowland J. Harrison

Originally from Australia, Mr. Harrison has a Master of Laws degree from the University of Alberta and is a member of the bars of Nova Scotia, Ontario and Alberta. He has gained extensive advisory, consulting and research experience in various aspects of energy regulation and policy during his career.

As a Professor of Law at various Canadian universities, Mr. Harrison taught Oil and Gas Law, Advanced Petroleum Law, Constitutional Law and Administrative Law. He has held senior management positions with a number of organizations including Canada Oil and Gas Lands Administration, the Canadian Institute of Resources Law, the Institute for Research on Public Policy and the Dalhousie Institute of Environmental Studies. Before his appointment to the Board, he was a partner in the Calgary office of Stikeman Elliott, a national and international Canadian law firm.

John S. Bulger

Originally from Manitoba, Dr. Bulger has a Ph.D. in Physical Chemistry from York University in Toronto, as well as a Graduate Management Diploma from McGill University in Montreal. He has experience in procurement, operations, planning, regulatory affairs and providing advice on energy issues. Prior to being appointed to the Board, he held the position of Senior Manager, Regulatory Affairs at Maritimes and Northeast Pipeline in Halifax, Nova Scotia. He also spent almost 20 years at Gaz Métropolitain in Montreal, Quebec in various senior management positions. He began his career at DuPont of Canada Ltd. Dr. Bulger is a member of the Chemical Institute of Canada.

Elizabeth (Liz) Quarshie

Originally from Ghana, Ms. Quarshie has a Master's degree in Business Administration from the University of Saskatchewan and a Master of Science degree in Environmental Engineering from Washington State University. She is a member of the Association of Professional Engineers and Geoscientists of Saskatchewan and is a Certified Professional Environmental Auditor.

Ms. Quarshie has more than 15 years experience in the energy sector and has held a portfolio of senior management positions at Cogema Resources Inc. and Cameco in Saskatoon, and

directed programs such as occupational health and safety, environmental impact assessments, compliance and public affairs. She also has extensive industry experience in project planning and design, development, implementation, monitoring and decommissioning. Ms. Quarshie has experience in radiation protection, air pollution control, solid and hazardous waste management, water and wastewater treatment, research and evaluation, environmental management systems, audits and community development.

Deborah W. Emes

Originally from Saskatchewan, Ms. Emes has a Master of Arts in Economics from the University of Calgary and is a Chartered Financial Analyst. She has practical and academic expertise in providing regulatory, economic and market advice. Ms. Emes has held positions in the public and private sectors, including Manager, Strategic Services for the British Columbia Utilities Commission. She has taught rate design and cost of capital training seminars for the Canadian Association of Members of Public Utility Tribunals.

Carmen L. Dybwad

A native of Saskatchewan, Dr. Dybwad has a Ph.D. in Regional Planning and Resource Development from the University of Waterloo. She has an educational background in economics as well as practical and academic expertise in public participation, resource development and the electricity sector. Dr. Dybwad has held several positions with the Government of Saskatchewan and the Saskatchewan Power Corporation, including Manager of Environmental Policy and Planning. Most recently, she was an assistant professor at the University of Regina where she taught classes in ecological economics, sustainable development and public administration. Dr. Dybwad is a volunteer with the Wood's Homes Foundation and a member of the Alberta Arbitration and Mediation Association.

Gaétan Caron

Originally from Quebec, Mr. Caron obtained his Bachelor of Applied Sciences degree from Laval University and his Master of Business Administration degree from the University of Ottawa. Mr. Caron joined the NEB in 1979, where he has held several senior positions. Prior to his appointment as a Board Member, he held the position of Chief Operating Officer. Mr. Caron is a member of several organizations including the Association of Professional Executives of the Public Service of Canada, the Quebec Order of Engineers, the Board of Directors of the Calgary United Way, and the Diversity Calgary Leadership Council.

Bryan Williams, Temporary Board Member

In September 2001, the Honourable Bryan Williams was appointed as a temporary Board Member for the purpose of matters related to the Joint Review Panel of the GSX Canada Pipeline Project.

Supplement l

Acts

National Energy Board Act
Canada Labour Code, Part II
Canada Oil and Gas Operations Act
Canada Petroleum Resources Act
Canadian Environmental Assessment Act
Energy Administration Act
Mackenzie Valley Resource Management Act
Northern Pipeline Act
Species at Risk Act

REGULATIONS AND ORDERS PURSUANT TO THE NATIONAL ENERGY BOARD ACT

National Energy Board Act Part VI (Oil and Gas) Regulations

National Energy Board Cost Recovery Regulations

National Energy Board Electricity Regulations

National Energy Board Export and Import Reporting Regulations

National Energy Board Gas Pipeline Uniform Accounting Regulations

National Energy Board Oil Pipeline Uniform Accounting Regulations

National Energy Board Oil Product Designation Regulations

National Energy Board Onshore Pipeline Regulations, 1999

National Energy Board Order No. M0-62-69

 $National\ Energy\ Board\ Pipeline\ Crossing\ Regulations,\ Part\ I$

National Energy Board Pipeline Crossing Regulations, Part II

General Order No. 1 Respecting Standard Conditions for Crossings by Pipelines General Order No. 2 Respecting Standard Conditions for Crossings of Pipelines

National Energy Board Power Line Crossing Regulations

 ${\it National\ Energy\ Board\ Processing\ Plant\ Regulations\ (SOR/2003-39)}$

National Energy Board Rules of Practice and Procedure, 1995

National Energy Board Substituted Service Regulations

Pipeline Arbitration Committee Procedure Rules, 1986

Proclamation Extending the Application of Part VI of the Act to Oil (May 7, 1970)

Regulations amending the National Energy Board Cost Recovery Regulations (SOR/2002-375) 21 October 2002.

Toll Information Regulations

Section 58 Streamlining Order XG/XO-100-2002

GUIDELINES, GUIDANCE NOTES AND MEMORANDA OF GUIDANCE PURSUANT TO THE NATIONAL ENERGY BOARD ACT

Adherence to Environmental Information Requirements under the Board's *Guidelines for Filing Requirements* (23 December 1997)

Consultation with Aboriginal Peoples: National Energy Board Memorandum of Guidance, (4 March 2002)

Filing of Supply Information in Compliance with the Board's Part VI (Oil and Gas) Regulations (16 May 1997)

Filing Procedures for Section 104 Right of Entry Order Applications (27 October 1999)

Financial Regulatory Audit Policy of the National Energy Board (23 February 1999)

Guidance Notes for the Onshore Pipeline Regulations, 1999 (7 September 1999)

Guidance Notes for the Onshore Pipeline Regulations, 1999-Amendment 1 (20 January 2003)

Guidance Notes for Pressure Equipment under National Energy Board Jurisdiction (8 August 2003)

Guidance Notes for the *Processing Plant Regulations* (28 July 2003) including: Appendix I - Guidance Notes for the Design, Construction, Operation and Abandonment of Pressure Vessels and Pressure Pipeline (3 July 2003) and Appendix II - Security and Emergency Preparedness and Response Programs (24 April 2002)

Guidelines for Filing Requirements (22 February 1995)

Guidelines for Negotiated Settlements of Traffic, Tolls and Tariffs (12 June 2002)

Guidelines Respecting the Environmental Information to be Filed by Applicants for Authorization to Construct and Operate Gas Processing and Straddle Plants, Liquid Natural Gas (LNG) Plants and Terminals, Natural Gas Liquids (NGL), Liquid Propane Gas (LPG) and Butane Plants and Terminals, under Part III of the National Energy Board Act (26 June 1986)

Investigative Digs and Related Pipeline Repairs/Replacements (2 December 2002)

Investigative Digs and Related Pipeline Repairs/Replacements (26 February 2003)

Letters dated 20 November 2003 and Draft National Energy Board Guidance Notes for Pre-Application Meetings

Memorandum of Guidance - Electronic Filing, National Energy Board Rules of Practice and Procedure, 1995 (21 March 2002)

Memorandum of Guidance - Concerning Full Implementation of the September 1988 Canadian Electricity Policy (Revised 23 January 2003)

Memorandum of Guidance - Implementation of the Fair Market Access Procedure for the Licensing of Long-term Exports of Crude Oil and Equivalent (17 December 1997)

Memorandum of Guidance - Regulation of Group 2 Companies (6 December 1995)

Memorandum of Guidance - Retention of Accounting Records by Group 1 Companies Pursuant to Gas/Oil Pipeline Uniform Accounting Regulations (30 November 1994)

Memorandum of Guidance - Financial Information Submitted to the National Energy Board by Group 1 Pipeline Companies (6 December 2001)

Security and Emergency Preparedness and Response Programs (includes document entitled Expected Elements for Emergency Preparedness and Response Programs) (24 April 2002)

REGULATIONS PURSUANT TO THE CANADA OIL AND GAS OPERATIONS ACT

Canada Oil and Gas Certificate of Fitness Regulations

Canada Oil and Gas Diving Regulations

Canada Oil and Gas Drilling Regulations

Canada Oil and Gas Geophysical Operations Regulations

Canada Oil and Gas Installations Regulations

Canada Oil and Gas Operations Regulations

Canada Oil and Gas Production and Conservation Regulations

Oil and Gas Spills and Debris Liability Regulations

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE CANADA OIL AND GAS OPERATIONS ACT

Guidance Notes for Applicant - Applications for Declaration of Significant Discovery and Commercial Discovery

Guidance Notes for the Canada Oil and Gas Diving Regulations

Guidance Notes for the Canada Oil and Gas Drilling Regulations

Guidelines Respecting Physical Environmental Programs during Petroleum Drilling and Production Activities on Frontier Lands

Notice of Revised Offhore Waste Treatment Guidelines (21 August 2002)

REGULATIONS PURSUANT TO THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT

Comprehensive Study List Regulations

Exclusion List Regulations

Federal Authorities Regulations

Inclusion List Regulations

Law List Regulations

Projects Outside Canada Environmental Assessment Regulations

Regulations Respecting the Co-ordination by Federal Authorities of Environmental Assessment Procedures and Requirements

REGULATIONS PURSUANT TO THE CANADA LABOUR CODE, PART II

Canada Occupational Safety and Health Regulations
Oil and Gas Occupational Safety and Health Regulations
Safety and Health Committees and Representatives Regulations

REGULATIONS PURSUANT TO THE MACKENZIE VALLEY RESOURCES MANAGEMENT ACT

Exemption List Regulations

Mackenzie Valley Land Use Regulations

Preliminary Screening Requirement Regulations

REGULATIONS PURSUANT TO THE NORTHERN PIPELINE ACT

Northern Pipeline Notice of Objection Regulations

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for Northern British Columbia

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Alberta

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Saskatchewan

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for Southern British Columbia

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Swift River Portion of the Pipeline in the Province of British Columbia

Order Designating the Minister for International Trade as Minister for Purposes of the Act Transfer of Duties, in Relation to the Pipeline, of Certain Ministers Under Certain Acts to the Member of the Queen's Privy Council for Canada Designated as Minister for Purposes of the Act

Transfer of Duties, in Relation to the Pipeline, of the National Energy Board Under Parts I, II and III of the *Gas Pipeline Regulations* to the Designated Minister for Purposes of the Act

Transfer of Powers, Duties and Functions (Kluane National Park Reserve Lands) Order Transfer of Powers, Duties and Functions (Territorial Lands) Order

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE SPECIES AT RISK ACT

The Coming into Force of Specific Sections of the Federal *Species at Risk Act*, S.C. 2002, c.-29 and its Effect on Applications before the National Energy Board (letter dated 11 September 2003)

Supplement II

COMPANIES WITH FACILITIES OR ACTIVITIES REGULATED BY THE NEB

The following pipeline companies and electric power entities construct or operate interprovincial or international pipelines or power lines under the NEB's jurisdiction, as of 31 December 2003. The pipeline companies have been divided into two groups. Group 1 gas and oil pipelines are the major pipeline companies subject to active regulatory oversight by the NEB. Group 2 consists of all other pipeline companies under the NEB's jurisdiction. For purposes of cost recovery, there are three classifications for companies: large, intermediate and small. The criteria for determining a company's classification are based on its size, throughput, cost of service, and use by third parties.

GROUP 1 GAS PIPELINE COMPANIES

Alliance Pipeline Ltd.
Foothills Pipe Lines Ltd.
Gazoduc Trans Québec & Maritimes Inc.
Maritimes and Northeast Pipeline
Management Ltd.
TransCanada PipeLines Limited
TransCanada PipeLines Limited, B.C.
System
Westcoast Energy Inc.

GROUP 1 OIL AND PRODUCTS PIPELINE COMPANIES

Cochin Pipe Lines Ltd. Enbridge Pipelines Inc. Enbridge Pipelines (NW) Inc. Terasen Pipelines (Trans Mountain) Inc. Trans-Northern Pipelines Inc.

GROUP 2 GAS PIPELINE COMPANIES

AltaGas (Sask) Inc.
AltaGas Services Inc.
AltaGas Suffield Pipeline Inc.
AltaGas Transmission Ltd.
ARC Resources Ltd.
Barrington Petroleum Ltd.
Bear Paw Processing Company (Canada)
Ltd.
Bellator Exploration Inc.
BP Canada Energy Company
Canada Customs and Revenue Agency

Canadian Natural Resources Limited Canadian-Montana Pipe Line Corporation Centra Transmission Holdings Inc. Champion Pipeline Corporation Limited Chief Mountain Gas Co-op Ltd. DEFS Canada L.P. Devon Energy Canada Corporation ELAN Energy Inc. Enbridge Gas Distribution Inc. EnCana Border Pipelines Limited EnCana Ekwan Pipeline Inc. EnCana Oil & Gas Co. Ltd. EnCana Oil & Gas Partnership EnCana West Ltd. Fletcher Challenge Oil and Gas Inc. Forty Mile Gas Co-op Ltd. Gibson Energy Ltd. GSX Canada Limited Partnership Huntingdon International Pipeline Corporation Husky Oil Operations Ltd. KeySpan Energy Canada Company Many Islands Pipe Lines (Canada) Limited Mid-Continent Pipelines Limited Minell Pipeline Limited Montreal Pipe Line Limited Murphy Canada Exploration Company Murphy Oil Company Ltd. Niagara Gas Transmission Limited Northstar Energy Corporation

Canadian Hunter Exploration Ltd.

Olympia Energy Inc.

Paramount Transmission Ltd.

Peace River Transmission Company

Limited

Pengrowth Corporation

Penn West Petroleum Ltd.

Petrovera Resources Ltd.

Pioneer Natural Resources Canada Inc.

Portal Municipal Gas Company Canada

Inc.

Regent Resources Ltd.

Renaissance Energy Ltd.

St. Clair Pipelines Management Inc.

Samson Canada, Ltd.

Shiha Energy Transmission Ltd.

Sierra Production Company

Suncor Energy Inc.

Talisman Energy Inc.

Taurus Exploration Canada Ltd.

Union Gas Limited

Vector Pipeline Limited Partnership

3398251 Canada Ltd.

GROUP 2 OIL AND PRODUCTS PIPELINE COMPANIES

Amoco Canada Petroleum Company Ltd.

Aurora Pipe Line Company

BP Canada Energy Company

ConocoPhillips Canada Limited

Dome Kerrobert Pipeline Ltd.

Dome NGL Pipeline Ltd.

Enbridge Pipelines (Westspur) Inc.

Ethane Shippers Joint Venture

Express Pipeline Limited Partnership

Genesis Pipeline Canada Ltd.

Glencoe Resources Ltd.

Husky Oil Limited

Imperial Oil Resources Limited

ISH Energy Ltd.

Montreal Pipe Line Limited

Murphy Oil Company Ltd.

Nexen Marketing

NOVA Chemicals (Canada) Ltd.

PanCanadian Kerrobert Pipeline Ltd.

Paramount Transmission Ltd.

Penn West Petroleum Ltd.

Plains Marketing Canada, L.P.

PMC (Nova Scotia) Company

Pouce Coupé Pipe Line Ltd. as agent and general partner of the Pembina North

Limited Partnership

PrimeWest Energy Inc.

Provident Energy Pipeline Inc.

Renaissance Energy Ltd.

Resolution Resources Ltd.

SCL Pipeline Inc.

Shell Canada Products Limited

Taurus Exploration Canada Ltd.

Williams Energy (Canada) Pipeline, Inc.

Yukon Pipelines Limited

COMMODITY PIPELINE COMPANIES

Abitibi-Consolidated Company of Canada

E.B. Eddy Forest Products Ltd.

Fraser Papers Inc. (Canada)

Genesis Pipeline Canada Ltd.

Penn West Petroleum Ltd.

Souris Valley Pipeline Limited

ELECTRIC POWER COMPANIES¹⁰

(*Indicates that the company's authorizations expired or were revoked during 2003.)

Abitibi-Consolidated Inc.

Advantage Energy, Inc.

Aguila Merchant Services, Inc. *

Aquila Networks Canada (British

Columbia) Ltd.

ATCO Electric Ltd. and ATCO Power

Ltd.

Avista Energy, Inc.

Bonneville Power Administration

BP Canada Energy Company

Brascan Energy Marketing Inc.

British Columbia Hydro and Power

Authority

Canadian Niagara Power Company

Limited

Canadian Niagara Power Inc. *

Canadian Transit Company, The

Candela Energy Corporation

Cargill-Alliant Trading Canada, Inc.

Cedars Rapids Transmission Co.

¹⁰ Those companies with an NEB electricity export authorization or a certificate or permit for an international power line

Chandler Energy Inc.

CMS Marketing, Services and Trading Company

Columbia Power Corporation

Conectiv Energy Supply Inc.

Constellation Power Source, Inc.

Consumers Energy Company

Coral Energy Canada Inc.

Detroit & Windsor Subway Company, The

Detroit Edison Company, The

Direct Commodities Trading Inc.

Direct Energy Marketing Inc.

Direct Energy Marketing Limited *

DTE Energy Trading, Inc.

Duke Energy Marketing Canada Corp.

Duke Energy Marketing Canada Ltd.

Dynegy Canada Inc. *

Dynegy Power Marketing, Inc.

Edison Mission Marketing & Trading, Inc.

El Paso Merchant Energy, L.P. *

Emera Energy Inc.

Encana Energy Services Inc.

Engage Energy Canada, L.P.

Engage Energy US, L.P.

ENMAX Energy Marketing Inc.

Entergy Power Marketing Corp.

Entergy-Koch Trading Canada (ULC)

EPCOR Merchant and Capital Inc.

Exelon Generating Company, LLC

Farms (including cottage and isolated loads)

FortisOntario Inc.

Fraser Paper Inc. (Canada)

Hydro One Networks Inc.

Hydro-Québec

IDACORP Energy L.P. *

Independent Electricity Market Operator

Inland Pacific Energy Services Ltd.

Lac La Croix Power Authority

Manitoba Hydro

Marketing D'Énergie HQ Inc.

Mirant Americas Energy Marketing, L.P.

Montwegan International Energia Resorce Inc.

Montenay Inc.

Morgan Stanley Capital Group Inc.

New Brunswick Power Corporation

Nexen Marketing

Northern States Power Company

NorthPoint Energy Solutions Inc.

Nova Scotia Power Inc.

NRG Power Marketing, Inc.

OGE Energy Resources, Inc.

Ontario Power Generation Inc.

Ontario Hydro Interconnected Markets

PG&E Energy Trading - Power L.P.

Powerex Corp.

PPL EnergyPlus, LLC

Public Service Company of Colorado

Reliant Energy Services Canada, Ltd.

Roseau Electric Cooperative Inc.

Saskatchewan Power Corporation

Sempra Energy Trading Corp.

Sonat Power Marketing Inc. and Sonat

Power Marketing, L.P.

Split Rock Energy LLC St. Clair Tunnel Company

Teck Cominco Metals Ltd.

Tractebel Energy Marketing Inc.

TransAlta Energy Marketing Corn

TransAlta Energy Marketing Corp. and TransAlta Energy Marketing (U.S.) Inc.

TransCanada Energy Ltd.

TransCanada Power Marketing Inc.

UBS AG, London Branch

USGen New England, Inc.

UtiliCorp Networks Canada (British

Columbia) Ltd.

Williams Energy Marketing & Trading

Canada, Inc.

WPS Canada Generation, Inc.

Supplement III

DOCUMENTS

Information Bulletins

The Board publishes Information Bulletins on the subjects listed below:

- The Public Hearing Process
- How to Participate in a Public Hearing
- Traffic, Tolls and Tariffs
- Electricity
- Protection of the Environment
- Pipeline Tolls and Tariffs: A Compendium of Terms
- Pipeline Safety

The Board also publishes the following brochures:

- Living and Working Near Pipelines Landowner Guide, 2002
- Excavation and Construction near Pipelines, January 2002

Information Series

The Board publishes the following Information Series:

- Answers to your Questions
- Library and Information Services
- Frontier Information Office
- Pipeline Regulation in Canada: A Guide for Landowners and the Public, June 2003

Videos

Two informational videos are available. The first is a general video on the roles and responsibilities of the NEB and the second is an educational video on the hearing process. For a copy, please contact the publication officer at publications@neb-one.gc.ca or call (403) 299-3562.

MAJOR DOCUMENTS PUBLISHED IN 2003

International Power Lines

New Brunswick Power Corporation Authorization to construct and operate an international power line EH-2-2002 Reasons for Decision, May 2003

Pipeline Facilities

Westcoast Energy Inc.
Southern Mainline Expansion
GH-1-2002
Reasons for Decision, January 2003

Westcoast Energy Inc.

GSX Concerned Citizens Coalition notice of application for review Southern Mainline Expansion Letter Decision, 26 March 2003

Georgia Strait Crossing Pipeline Limited Notice of motion by GSX Concerned Citizen's Coalition, GH-4-2001 Letter Decision, 8 July 2003

GSX Canada Pipeline Project Construction and Operation of a Natural Gas Pipeline, GH-4-2001 Joint Review Panel Report, July 2003 Trans-Northern Pipeline Inc.
Capacity expansion and line reversal facilities, OH-1-2003
Reasons for Decision, July 2003

EnCana Ekwan Pipeline Inc.
Construction and operation of the
Ekwan Pipeline, GH-1-2003
Reasons for Decision, September 2003

Georgia Strait Crossing Pipeline Limited
Authorizing the construction and
operation of the GSX Canada Pipeline
GH-4-2001

Reasons for Decision, November 2003

Trans-Northern Pipeline Inc. Section 58 application, OHW-1-2003 Reasons for Decision, November 2003

Tolls and Tariffs

TransCanada PipeLines Limited
Review and variance of cost of capital
decision, RH-R-1-2002
Reasons for Decision, February 2003

TransCanada PipeLines Limited 2003 Tolls and Tariff Application RH-1-2002 Reasons for Decision, July 2003

Electricity

Manitoba Hydro-Electric Board Electricity Export Permit EPE-224 Letter Decision, 23 January 2003

Montenay Inc.
Electricity Export Permits EPE-228,
EPE-229
Letter Decision, 7 July 2003

USGen New England Inc.
Electricity Export Permits EPE-230,
EPE-231
Letter Decision, 1 August 2003

Duke Energy Marketing Canada Corp. Electricity Export Permits EPE-238, EPE-239 Letter Decision, 18 September 2003

Avista Energy Inc.
Electricity Export Permits EPE-236,
EPE-237

Letter Decision, 24 September 2003

Northern States Power Company Electricity Export Permits EPE-234, EPE-235 Letter Decision, 25 September 2003

Public Service Company of Colorado Electricity Export Permits EPE-232, EPE-233 Letter Decision, 26 September 2003

Direct Commodities Trading (DCT) Inc. Electricity Export Permit EPE-240 Letter Decision, 15 October 2003

PPL EnergyPlus, LLC
Electricity Export Permits EPE-241,
EPE-242
Letter Decision, 15 December 2003

OTHER DOCUMENTS

Appropriate Dispute Resolution Guidelines (July 2003)

Canada's Energy Future: Scenarios for Supply and Demand to 2025 (June 2003)

Canadian Electricity Exports and Imports - An Energy Market Assessment (January 2003)

Focus on Safety - A Comparative Analysis of Pipeline Safety Performance (April 2003)

Maritimes Natural Gas Market - An Overview and Assessment (June 2003)

National Energy Board Annual Report
Pursuant to the Access to Information Act
and the Privacy Act 1 April 2002 31 March 2003 (11 June 2003)

National Energy Board 2003-2004 Estimates -Part III - Reports on Plans and Priorities (March 2003)

National Energy Board 2002 Annual Report to Parliament (March 2003)

National Energy Board Performance Report for the period ending March 31, 2003 (September 2003)

Reglatory Agenda, 12 Issues, 31 january 2002 to 31 December 2003

Short-term Natural Gas Deliverability from the Western Canada Sedimentary Basin 2003 - 2005 (December 2003)

Supplement IV

LEGAL PROCEEDINGS

1. TransCanada PipeLines Limited (TCPL) – Application for Review of Board Toll Decision RH-4-2001 (RH-R-1-2002)

Review by the NEB

On 16 September 2002, TCPL applied to the Board for a review and variance of Board Decision RH-4-2001 and the implementing Orders. TCPL claimed that the Board committed errors in the RH-4-2001 Decision when it:

- breached its legal obligation to apply the fair return standard;
- improperly applied the comparable investment, capital attraction and financial integrity standards;
- misinterpreted the ATWACC proposal;
- continued the application of the RH-2-94 Formula for determination of return on equity;
- violated the stand-alone principle; and
- breached the duty of fairness by failing to provide adequate reasons for many of its decisions.

Decision: Reasons for Decision issued on 20 February 2003 (RH-R-1-2002). The Board decided that the review application had not raised a doubt as to the correctness of the Board's 2002 Decision (RH-4-2001). In Reasons for Decision RH-R-1-2002, the Board dismissed the application.

2. TransCanada PipeLines Limited (TCPL) – Application to Federal Court of Appeal of Board Decision RH-R-1-2002

Federal Court of Appeal

On 21 March 2002, TCPL applied to the Federal Court of Appeal for leave to appeal the Board's RH-R-1-2002 Decision issued on 20 February 2003. In this Decision, the NEB dismissed TCPL's September 2002 request for a Review and Variance of the Board's June 2002 RH-4-2001 Decision on the company's Fair Return Application (see #1 above). In May 2003, the Federal Court of Appeal granted TCPL leave to appeal.

Decision: The hearing is scheduled in Toronto from 16 February to 19 February 2004.

3. GSX Concerned Citizens Coalition's (GSXCCC) – Application for Review of Board Ruling and Board Decision GH-2-2002 – Westcoast Energy Inc.'s Southern Mainline Expansion

Review by NEB

On 13 February 2003, GSXCCC applied for a review of a Board Decision dated 5 September 2002. The decision in question denied a GSXCCC request for additional environmental information and analysis regarding a proposed expansion of Westcoast Energy Inc.'s Southern Mainline natural gas pipeline system. GSXCCC also asked the Board to rescind its decision of January 2003 to approve the Southern Mainline Expansion.

In its application for review, GSXCCC asked the Board to (i) review its decision dated 5 September 2002 denying a motion by GSXCCC concerning unanswered information requests as it relates to the end use of the gas transported by the project, and (ii) rescind the Board's decision of January 2003 on the Southern Mainline expansion and to rehear the application to address the evidence and issues that were not previously addressed.

Decision: On 26 March 2003, the Board decided that a review was not warranted because GSXCCC had not raised a doubt as to the correctness of the decisions.

4. Federation of Saskatchewan Indian Nations; The Chiefs of Treaty No. 4 and Treaty No. 8 (FSIN) v. Alliance Pipeline Ltd.

Federal Court of Appeal

On 2 May 2001, FSIN brought an application for judicial review of the NEB's decision of 2 April 2001 to deny FSIN's request that the Board convene a hearing to consider revocation or suspension of the Certificate of Public Convenience and Necessity (Certificate GC-98) issued to Alliance. FSIN claimed that Alliance had contravened a term or condition of the certificate.

On 16 April 2002, the Federal Court of Appeal granted a motion by FSIN to amend its application for judicial review. The amendment added a request for judicial review/appeal of the NEB's decision of 23 November 1998 (approved by Governor in Council on 23 December 1998) to grant Certificate GC-98. The grounds for the added request included that the NEB failed to properly exercise its jurisdiction by issuing Certificate GC-98 without including revenue sharing as a term of GC-98 as mentioned in a Memorandum of Understanding between FSIN and Alliance.

Decision: On 28 May 2003, the Federal Court of Appeal quashed the application for lack of jurisdiction with costs to the respondent.

5. Communications, Energy and Paperworkers Union of Canada (CEP) –
Application for Review of Trans-Northern Pipelines Inc. (TNPI) Capacity
Expansion and Pipeline Flow Reversal Decision (OH-1-2003)

Review by NEB

In September 2003, CEP applied to the Board for a review of its Reasons for Decision OH-1-2003 issued on 7 August 2003, in which the Board approved an application from TNPI to increase the pipeline capacity on its petroleum products pipeline system from Montréal, Québec to Farran's Point near Ingleside, Ontario and to reverse the direction of flow between Farran's Point and the Clarkson Junction in Mississauga, Ontario. CEP requested the Board to review its decision in total and, in the interim, to stay the decision pending the outcome of the review.

Decision: On 7 November 2003, the Board denied the CEP's application for review and in light of that decision, decided it was unnecessary to address the request for a stay.

6. City of Hamilton - Judicial Review - Trans-Northern Pipeline Inc. (TNPI) - Pipeline Replacement and Lowering in Hamilton, Ontario - Decision OHW-1-2003

Federal Court, Trial Division

On 18 August 2003, the City of Hamilton filed a Notice of Application for Judicial Review with the Federal Court, Trial Division. The Notice sought, among other things, a declaration that

the Canadian Environment Assessment Act (CEA Act) does not apply to the TNPI application and that no environmental screening is or was required to be carried out by the Board under the CEA Act in respect of the application. The Board filed with the Court a Notice of Appearance

Decision: As a result of a consent motion to the Court, the Application has been put into abeyance until 30 days after the Board's Decision on the TNPI application which was released on 27 November 2003. Due to the intervening Christmas recess at the Federal Court, the 30 day limitation will have expired on 15 January 2004.

Supplement Y

CO-OPERATION WITH OTHER ORGANIZATIONS

The NEB co-operates with other agencies to reduce regulatory overlap and provide more efficient regulatory services.

Alberta Energy and Utilities Board (EUB)

The NEB has a Memorandum of Understanding (MOU) with the EUB on Pipeline Incident Response. The agreement provides for mutual assistance and a faster and more effective response by both boards to pipeline incidents in Alberta.

The NEB and the EUB maintained their commitment to using the common reserves database for oil and gas reserves in Alberta. Both boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for co-operation. Currently the Boards are working on a new assessment of gas resources in Alberta.

British Columbia Ministry of Energy and Mines (BCMEM)

The NEB and BCMEM maintained their commitment to using a common reserves database for oil and gas reserves in British Columbia. Both boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for co-operation.

Canada-Newfoundland Offshore Petroleum Board (C-NOPB) and Canada-Nova Scotia Offshore Petroleum Board (C-NSOPB)

The Chairs of the NEB, the C-NOPB and the C-NSOPB, together with executives from the Newfoundland, Labrador and Nova Scotia Departments of Energy and NRCan, form the Oil and Gas Administrators Advisory Council (OGAAC). The OGAAC membership discusses and decides on horizontal issues affecting their respective organizations to ensure convergence and collaboration on oil and gas exploration and production issues across Canada. The NEB, C-NOPB and C-NSOPB staff also work together to review, update and amend regulations and guidelines affecting oil and gas activities on Accord Lands.

NEB staff also provides technical expertise to NRCan, C-NOPB and C-NSOPB on technical matters of mutual interest, such as reservoir assessment, occupational safety and health, diving, drilling and production activities.

Canadian Association of Members of Public Utility Tribunals (CAMPUT)

CAMPUT is a non-profit organization of federal, provincial and territorial boards and commissions which are responsible for the regulation of the electric, water, gas and pipeline utilities in Canada. Members sit on the executive committee of the association, promoting the education and training of members and staff of public utility tribunals. The NEB also provides staff support to CAMPUT in the form of information provision and assistance in conference organization. During 2003, the NEB co-hosted the annual CAMPUT conference with the EUB. The conference, held in Banff, Alberta, was themed *Markets in Transition - The Changing Face of Regulation*.

Canadian Environmental Assessment Agency (CEAA)

NEB staff is actively engaged with CEAA matters, participating in CEAA's Senior Management Committee and acting as an observer on the Regulatory Advisory Committee. This

involvement ensures effective co-ordination of regulatory responsibilities relating to environmental assessments.

Comisión Reguladora de Energía (CRE) of Mexico

Staff at the NEB and CRE maintain an ongoing informal relationship, sharing regulatory experiences and information on North American energy markets. Both organizations are committed to continuing and strengthening this relationship, which includes inter-agency staff visits. In September 2003, a trilateral agreement was signed with the NEB, CRE and FERC to share perspectives on regulatory approaches and to work on eliminating inconsistencies in regulation to the extent possible.

Co-operation on the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline Project through the Northwest Territories

In 2002, the NEB, in collaboration with the boards and agencies responsible for environmental impact assessment and regulatory review of a major natural gas pipeline through the Northwest Territories, issued a Co-operation Plan. This plan describes how the agencies propose to co-ordinate their activities to ensure an efficient, flexible and timely process that reduces duplication and enhances public and northern participation in the review of a major pipeline application. The NEB's partners in the Plan include the Mackenzie Valley Land and Water Board, the Sahtu and Gwich'in Land and Water Boards, the NWT Water Board, the Mackenzie Valley Environmental Impact Review Board, the Environmental Impact Screening Committee and the Environmental Impact Review Board for the Inuvialuit Settlement Region, the Inuvialuit Game Council, the Inuvialuit Land Administration, the Canadian Environmental Assessment Agency, the Department of Indian Affairs and Northern Development, and observers from the Deh Cho First Nation, the Government of the Northwest Territories, and the Government of Yukon.

Human Resources Development Canada (HRDC)

The NEB has an MOU with HRDC to administer the *Canada Labour Code* for NEB-regulated facilities and activities and to co-ordinate these safety responsibilities under the COGO Act and the NEB Act. The NEB also participated in the HRDC client satisfaction survey.

Mackenzie Valley Environmental Impact Review Board (MVEIRB)

In late 2000, the NEB and the MVEIRB signed a joint MOU to establish a co-operative framework for environmental impact assessment in the Mackenzie Valley. In the case of transboundary pipeline projects, the NEB has responsibilities under both the *Mackenzie Valley Resource Management Act* and the CEA Act. This MOU facilitates the co-operation of two board to reduce duplication and increase effectiveness of the environmental review process.

National Association of Regulatory Utility Commissioners (NARUC)

Board Members regularly participate in meetings of the U.S. NARUC, particularly with respect to developments in U.S. gas markets that may affect cross-border trade in natural gas.

Natural Resources Canada (NRCan)

In 1996, the NEB signed an MOU with NRCan to reduce duplication and increase co-operation between the agencies. This MOU covers items such as data collection, the enhancement of energy models and special studies. The MOU was renewed in January 2000.

Northern Pipeline Agency (NPA)

The NEB provides technical and administrative assistance to the NPA, which, under the Northern Pipeline Act, has primary responsibility for overseeing the planning and

construction of the Canadian portion of the Alaska Natural Gas Transportation System by Foothills Pipe Lines Ltd.

Pipeline Technical Regulatory Authorities of Canada Council (PTRACC)

The NEB chairs a staff committee of federal and provincial technical regulators. PTRACC meets regularly throughout the year to discuss pipeline safety and environmental initiatives.

Transportation Safety Board of Canada (TSB)

While the NEB has exclusive responsibility for regulating the safety of oil and gas pipelines under federal jurisdiction, it shares the responsibility for investigating pipeline incidents with the TSB. The roles and responsibilities of each body with regard to pipeline accident investigations are outlined in a MOU between the two boards.

U.S. Federal Energy Regulatory Commission (FERC)

NEB and FERC executives maintain a regular dialogue on their respective regulatory experiences and exchange information available in the public domain in order to keep one another informed about current and upcoming issues which may affect both organizations, and to mutually benefit from knowledge about best regulatory practices. In September 2003, a trilateral agreement was signed with the NEB, CRE and FERC to share perspectives on regulatory approaches and to work on eliminating inconsistencies in regulation to the extent possible.

Yukon Territory Department of Economic Development (YDED)

The NEB continues to work with Yukon officials to facilitate the transfer of oil and gas regulatory responsibilities in accordance with the Yukon Accord Implementation Agreement. The Board provides expert technical advice to the YDED.

Supplement VI

LIST OF APPENDICES

The following Statistical Reports are published separately as Appendices to the Annual Report Electronic copies can be found on the Board's Web site and printed versions are available from the Publications Office. Call (403) 299-3562 or 1-800-899-1265, send a facsimile to (403) 292-5503 or visit the Board's Web site (www.neb-one.gc.ca).

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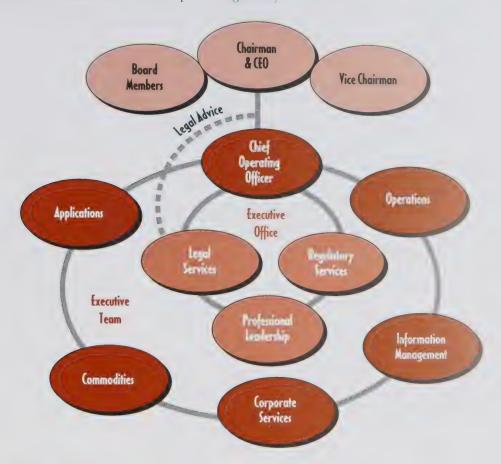
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NEB ORGANIZATION

The NEB is structured into five business units, reflecting major areas of responsibility: Applications, Operations, Commodities, Information Management and Corporate Services. In addition, the Executive Office includes three other teams providing specialized services: Legal Services¹¹, Professional Leadership and Regulatory Services.



SENIOR BOARD STAFF

Jim Donihee

Judith Hanebury

Michel Mantha

Sandy Harrison

John McCarthy

Valerie Katarey

Byron Goodall

Chief Operating Officer

General Counsel

Secretary of the Board

Business Leader, Applications

Business Leader, Commodities

Business Leader, Corporate Services

Business Leader, Information Management

¹¹ Legal Services is accountable to the Chairman and Board Members for the provision of legal advice. It is accountable to the Chief Operating Officer for administrative matters.

Gregory Lever Business Leader, Operations

Bonnie Gray Project Leader, Northern Preparedness

Glenn Booth Professional Leader, Economics
Alan Murray Professional Leader, Engineering
Robert Steedman Professional Leader, Environment

BUSINESS UNIT RESPONSIBILITIES

Applications

The Applications Business Unit is responsible for processing and assessing most regulatory applications submitted under the NEB Act. These fall primarily under Parts III and IV of the NEB Act, corresponding to facilities and tolls and tariffs applications. It is also responsible for other matters such as the financial surveillance and financial audits of companies under the Board's jurisdiction and addressing landowner concerns.

Commodities

The Commodities Business Unit is responsible for energy industry and marketplace surveillance, including the outlook for the demand and supply of energy commodities in Canada, updating guidelines, and regulations relating to energy exports as prescribed by Part VI of the NEB Act. It is also responsible for assessing and processing applications for oil, natural gas and electricity exports, and for the construction and operation of international and designated interprovincial electric power lines.

Operations

The Operations Business Unit is accountable for safety, environmental matters and security pertaining to facilities under the NEB Act, the COGO Act and the CPR Act. It conducts safety, security and environmental inspections and audits, investigates incidents, monitors emergency response procedures, regulates the exploration, development and production of hydrocarbon resources in non-accord frontier lands, and develops regulations and guidelines with respect to the above.

Information Management

The Information Management Business Unit is responsible for developing and implementing an information management strategy for the Board and disseminating the information required by internal and external stakeholders. Its responsibilities include internal and external communications, library services, corporate records management, mail services, access to information, document production services, and Board-wide computer services.

Corporate Services

The Corporate Services Business Unit provides those services necessary to assist the Board in its management of human, materiel and financial resources. Its responsibilities include corporate policy and planning activities, materiel and facilities management, staffing, training, compensation and benefits, procurement, inventory control, physical security, and union/management activities.

Executive Office

The Executive Office is responsible for the Board's overall capability and readiness to meet strategic and operational requirements including legal advice for both regulatory and management purposes, maintaining and enhancing technical expertise within the Board in the economic, environmental and engineering fields, and hearing administration and regulatory support.

Supplement VIII

LIST OF ABBREVIATIONS

ADR appropriate dispute resolution

Alliance Pipeline Ltd.

AVC assurance of voluntary compliance

BC Gas Utility Ltd.

BC Hydro British Columbia Hydro and Power Authority

Board or NEB National Energy Board

BSE Bovine spongiform encephalopathy (also known as "mad cow

disease")

CAPP Canadian Association of Petroleum Producers

CAMPUT Canadian Association of Members of Public Utility Tribunals

CEAA Canadian Environmental Assessment Agency

CEA Act
CEPA
Canadian Environmental Assessment Act
CEPA
Canadian Energy Pipeline Association
CNRL
Canadian Natural Resources Limited
COGO Act
CSA
Canadian Oil and Gas Operations Act
CSA
Canadian Standards Association
CSR
Comprehensive Study Report
e-filing
Electronic Regulatory Filing

EFSEC Energy Facility Site Evaluation Council

EMA Energy Market Assessment Enbridge Enbridge Pipelines Inc.

ESIMS Environmental and Safety Information Management System

ESRF Environmental Studies Research Funds FERC Federal Energy Regulatory Commission

GDP Gross Domestic Product

GFR Guidelines for Filing Requirements

GSX Georgia Strait Crossing Pipeline Limited

IPL international power line

Line 9 Enbridge's crude oil pipeline from Montreal to Sarnia M&NP Maritimes and Northeast Pipeline Management Ltd.

Manitoba Hydro Manitoba Hydro-Electric Board MOU Memorandum of Understanding NB Power New Brunswick Power Corporation

NEB or Board National Energy Board NEB Act National Energy Board Act NGLs natural gas liquids

NYMEX New York Mercantile Exchange

OPEC Organization of Petroleum Exporting Countries

OPR-99 Onshore Pipeline Regulations, 1999
PPR Processing Plant Regulations

RTO regional transmission organization SARS Severe Acute Respiratory Syndrome

Sumas or SE2 Sumas Energy 2 Inc.

TMPL Trans Mountain pipeline Company Ltd.

TransCanada PipeLines Limited

TSB Transportation Safety Board of Canada WCSB Western Canada Sedimentary Basin

Westcoast Energy Inc.
WTI West Texas Intermediate

Metric Conversion Table

The Board uses the International System of Units. The energy content of a 30-litre tank of gasoline is approximately one gigajoule. A petajoule is one million gigajoules. On average, Canada consumes about one petajoule of energy every 50 minutes for all uses (heat, light and transportation).

The following conversion table is provided for the convenience of readers who may be more familiar with the Imperial System.

Approximate Conversion Factors

metre = 3.28 feet

kilometre = 0.62 mile

hectare = 2.47 acres

cubic metre of oil = 6.3 barrels

cubic metre of natural gas = 35.3 cubic feet

gigajoule = 0.95 thousand cubic feet of natural gas at

1 000 Btu per cubic foot or 0.165 barrels

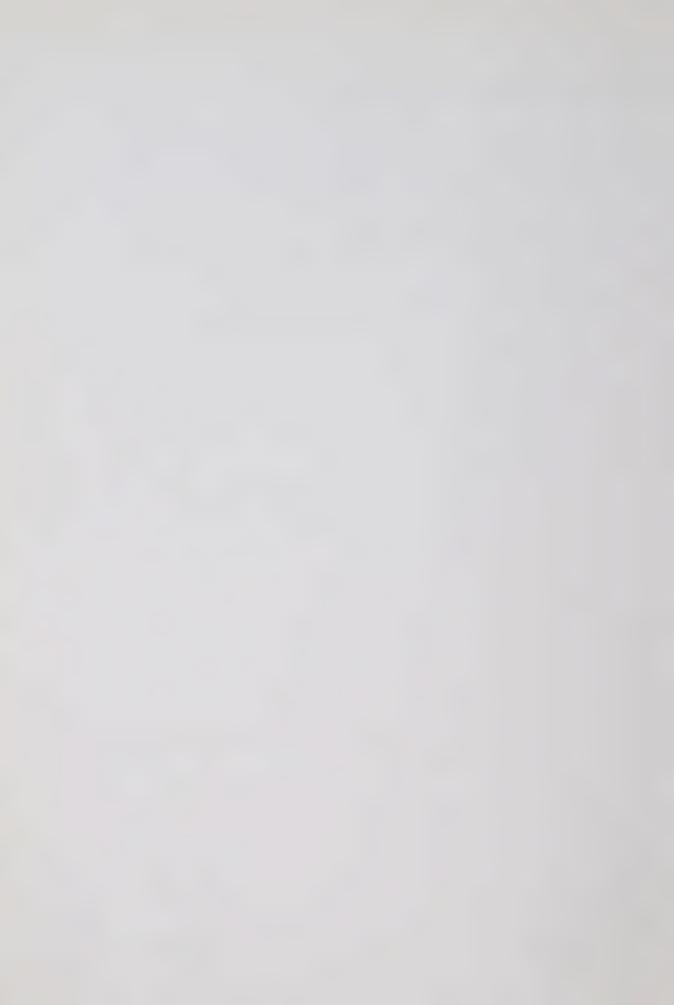
of oil, or 0.28 megawatt hours of electricity

gigajoule = 10° joules

petajoule = 10^{15} joules

gigawatt hour = 10⁶ kilowatt hours

terawatt hour = 10⁹ kilowatt hours



Son Abrid Jim Andersen Elizabeth Arden Lilly Armstrong Lawrence Alor Terry Boker Rite Bergetzi Trans Barnes Christine Beauchemin Ion Benes Judy Bennett Michael Bensen Hancy Berard Brown Steve Berthelet Bill Bingham Karen Blank Merie Blesken Glenn Booth I Bourgeeis Barry Branston Diane Bronner Chantal Briand Michaelle Brosseau (Liff Brown Steve Brown John Bulger Terri Burko to Burton Stephen Buszowski Mana Buller Glenn Cameron Kevin Campbell Shannon Carignan Gaétan Caron Philip Cheung theel Chow Harley Christensen Ken Colosima Patty Cooper Pat Cermier Dana Cornea Sylvia Cousineau Venessa Cazine ette Greig Susan Criddle Cossondra Crippen Sharen Culp Cecilia Cupido Jan Dana Jim Danidson Greg Davis Heather Davis di Daw Teresa de Grosbels Shawn DeForest Fred Deliancourt Danielle Domers Leona Desmet Danyse Dioyy Anita Gien Bharat Dioi to Dodd Jim Donihoo Abby Darval Megan Davyles Pamela Dowsen Hancy Dubeis Karon Duckworth Danne Dunn Mavis Durn no Duquette Claudino Dutil-Berry Carmon Dybwed Mary Dylke Kelly Dypolt Ingrid Ektwell Elizabeth Elder Julian Empanyel toruh Emes Poter Enderwick Wendy Ettinger Marcus Eyre Sandra Fakeni Alisen Ferrand Bebbi Feduniek Christopher Finley (Fisher Margery Fowke Jim Fox John Fox Murray Fraser Yvanne Fry Albert Fung Cherlene Gaudet Feisel Gazia Scatt Gadek

ise George Kevin Gerla Diana Ghikas Lillian Giardini Gurdeep Gill Preet Gill Melanie Gnyp in Goble Byron Goodall Duncen Grant Bennie Gray Geraldine Green Susan Marie Greentree an Gudgeon Pierre Guenerd Sam Guirgis Emily Helliday Guy Homel Judith Honebury rland Harrison Sandy Harrison Sendra Harrower Michelle Haug Debbie Hockbert Faul Hess s Hicks Stella Hiebert Gord Higginson Kevin Hill Zarina Hirji Merle Hoffman Brent Hague Holdsworth Colleen Holt Kym Happer-Smith Jensen Hu Orlando Huang Andrew Hudson

> Elka Mayer States Milathyric France Millette Ruth Mills Maureen Mitchell Tony Mitchell Bindu Modha **Bob Modray** Caroline Magre-Bruce Magres Jame Mareles Cormon Marin Leuis Marin Joyce Marrison Koren Mortan Carla Marton Stawy Sylvia Mosseau Reb Matt. Alan Murray Semira Hanji Brian Nosbin François Nguyen Louise Niro James Obrigewitch Karen Overli Wendy Olan Daniella Pacifico Rosemarie Palmiere Lorna Patterson Ken Paulson Marc Pauzé Joe Paviglianiti Doug Pearce Marina Pedersen Bernard Pelletier Fern Phillips Steve Pierce Pat Pilon-Rouleau

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Don Semper Rill Seney Candico Servals Michella Shabits Arm Shalla Jutto Shaw Hanri Simonesu Chantele Simons Rody Singer Gail Singh Corina Smith Patrick Sprague Jeanifer Stanier Robert Steedman Brenda Stevens Jonathan Stewart Brant-Storey Susan Storey Catherine Taylor Terry Taylor Jean-Paul Théorêt Zoe Ter Berg Marc Thibaudeau Jane Thomas Deborah Thompson Gerald Thompson Jean Paul Tourigny Denis Tremblay Paul Trudel Rick Turner Chris van Egmond Laura Van Ham Mieke Vander Valk Jacqueline Vanhouche Ken Vollman Dave Walker Janet Walker Patricia Walker Bill Wall Shelley Watt Bryan Williams Jean Woeller Sharon Wong Gary Woo David Young Tracy Young Marian Yuzda Hanya Zacharko

Franci Juglic Joci-Lea Jenkins Audry Johnston Elizabeth Johnson Jecnette Johnston Brian Kene Adelle Kormon Valleile Katarey Maureen Keorni Teresa Kernedy Brende Kerny Jamie Kareliak Rudi Kloubert Chris Kenerhel Mike Knegs Jasef Kepec John Korer Beboreh Kuchinski - Mithele Lohbé - Leuro-Solomees Locorus - Anne Lellische Nathalie Laprise Beth Lau Kerry Lee Robert LeMay Joe Lem Gregory Lever Kent Lien Robin Lipton Ken Luu Barry Lynch Louise Lynch Marnie MacGillivray Leary Vockers Legano Mases Hanny Mah Broto Ma Beli Nahnic Tasneem Manii Michel Mantha Matt Mariaes Stara Wiryno Morshall Ken Martin Saraha Martindalo Carloy Martinello Ken Mestil Lesley Melibox Marcelle Motzeit John McCorthy Nuclin McCorrley Claire McKinnon John Meluny Montku McPeake Margaret McQuisses Shari Medford Loreto Meneses Jan Merta Margary Maria Samble Advances

Judy inglis Sheena Jackson Lea James Cons Jure

te Jennifer Pugh Elizabeth Quarshie Christian Rankin Ed Reddy
Karia Reeser Shirley Rehel Laura Richards Share Richardson
Chantal Robert Sherry Rabiason Alex Ress Kent Renden Craig Rubie
Mary-Jano Sam Nurbaru Samji Monica Santander Leigi Santaianni
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Peter Schnell Eugene Schoonen Dan Seekings Jason Seinger

Glaria Mughes



National Energy Board



Office national de l'énergie



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TO PARLIAMENT



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National Energy Board



Office of the Chairman

Bureau du Président

22 March 2005

The Honourable R. John Efford, P.C., M.P. Minister of Natural Resources
580 Booth Street, 21st Floor
Ottawa, Ontario K1A 0E4

Dear Minister:

I am pleased to submit the Annual Report of the National Energy Board for the year ending 31 December 2004, in accordance with the provisions of Section 133 of the *National Energy Board Act*, R.S.C. 1985, c. N-7.

Canada

Yours truly,

Kenneth W. Vollman

Chairman

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CHAIRMAN'S LETTER

OUR PURPOSE

We promote safety, environmental protection, and economic efficiency in the Canadian public interest within the mandate set by Parliament in the regulation of pipelines, energy development and trade.

OUR VISION

To be a respected leader in safety, environmental and economic regulation.

OUR GOALS

NEB-regulated facilities and activities are safe and perceived to be safe.

NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected.

Canadians derive the benefits of economic efficiency.

The NEB fulfils its mandate with the benefit of effective public engagement.

The NEB is effective in leading its people and managing its resources.

he Energy Market in 2004 saw the continuation of the trends established in previous years. The most notable and apparent to all Canadians were the high and volatile energy prices led by crude oil prices, rising to more than US\$50 per barrel in late October and staying over US\$40 throughout the year. Despite increased exploration efforts, the declining supply of domestic conventional crude oil and flat domestic natural gas production continued to move producers to develop non-traditional supply sources. For crude oil, the focus was on expansion of production from the East Coast offshore and from Alberta's oil sands. For natural gas, much attention has been placed on developing supply sources in Canada's North, developing coalbed methane sources and the import of liquefied natural gas.

The development of these non-traditional supply sources is presenting challenges for both the markets and the National Energy Board (NEB). While there is some spare capacity on the existing natural gas transportation infrastructure, applications for new pipelines to deliver production from new sources continue to be filed. In contrast, the Canadian oil pipeline infrastructure is being strained to the limit and plans are being made for both expansions and new pipelines to accommodate growing oil sands production.

A key issue for several Canadian electricity markets is declining generation reserve margins. Efforts to improve the electricity supply/demand balance have been focused on increasing conventional and renewable generation capacity, applying new technologies, and enhancing demand side management and demand response programs.

The Regulator's Role in the emerging energy market environment is encompassed by two words – protect and enable. The NEB needs to both protect and enable in order to achieve outcomes that are in the public interest. In harnessing our energy resources, we must protect the things that are important to Canadians: the integrity of our environment; respect of individual property; public safety and security; and effective market functioning.

The word *enable* implies a responsibility to *make possible*. As new supply sources are developed, including both traditional fossil fuel sources and newer sources such as wind power, investment in infrastructure is required to transport this energy to consumers - to heat our homes, power our appliances, and move us around. Enabling means providing a clear set of rules, which support investors and encourage investment to proceed, within the limits of consumer protection. Finally, the concept of enabling implies a responsibility to provide efficient regulatory processes and practices so that projects found to be in the public interest can proceed on a timely basis.



Major infrastructure projects can affect Canadians and the Board takes its protection responsibilities very seriously. In public hearings on energy infrastructure, significant hearing time is dedicated to matters around protection. The NEB's challenge is to find the balance between enabling and protecting.

The smart regulation concepts of goal-oriented regulation, streamlining of processes, regulatory clarity, and partnerships and cooperation assist the NEB in enabling, which drives many of its activities. The Board's work on issuing goal-oriented regulations continues. Regulatory clarity should be enhanced by the issuance of the Filing Manual in April 2004 as well as the publication of service standards for the processing of non-hearing facilities applications. During 2004, the Board made substantial progress in working with other regulatory boards and agencies to improve the coordination of review processes. As part of these efforts, we made proposals to improve clarity, collaboration and timeliness of environmental assessments conducted under the Canada Environmental Assessment Act and our efforts in this direction will continue in 2005.

Over the past few years, the Board has expended much effort preparing for an application for a new gas pipeline from Canada's North. Imperial Oil Resources Ventures Limited filed applications for the Mackenzie Valley Gas Pipeline in October 2004. The filing of these applications triggered the use of the cooperative regulatory framework that integrates the regulatory roles of fourteen boards and agencies involved in the project.

The Board presided over two toll and tariff hearings in 2004 for TransCanada PipeLines Limited, largely dealing with issues arising from decontracting. The Board is striving to find ways to improve the timeliness of toll hearings and provide more long-term certainty to investors.

Aboriginal issues continue to play a large role in energy regulation. The NEB is reviewing new case law on consultation with Aboriginal peoples to ensure that its regulatory processes are in compliance with ongoing legal developments in this area.

Monitoring of energy markets and the provision of energy advice remain cornerstones of NEB operations. In 2004, seven energy market assessments were produced covering various aspects of the oil, natural gas and electricity markets. The second annual publication of Focus on Safety – A Comparative Analysis of Pipeline Safety Performance has been very well received by industry. Information on the six key performance indicators indicate that the safety performance of NEB-regulated facilities compare well with the performance of facilities in other countries. Publications like these allow the Board to be regarded as a respected and objective source of energy market information.

During 2004, the NEB invested significant effort on improving internal processes. Some examples include documenting the management system that we are using, improving e-filing, and implementing service standards. These activities position the NEB to better serve the Canadian public.

In the dynamic energy environment, 2004 has been a challenging year for the NEB. I strongly believe that the National Energy Board remains well-positioned to carry out its role in the future development of Canada's energy industry by protecting and enabling in the public interest of all Canadians.

The following

ABOUT THE NEB

he National Energy Board (NEB or Board) is an independent regulatory tribunal that was established in 1959. It reports to Parliament through the Minister of Natural Resources. The main responsibilities of the NEB are found in the National Energy Board Act (NEB Act). These include regulating the construction and operation of pipelines that cross international or provincial borders, as well as tolls and tariffs². Another key role is to regulate international power lines and designated interprovincial power lines. The NEB also regulates natural gas imports and exports, oil and electricity exports, and some oil and gas exploration on frontier³ lands, particularly in Canada's North and certain offshore areas. The Board has additional regulatory responsibilities under the Canada Oil and Gas Operations Act (COGO Act) and under certain provisions of the Canada Petroleum Resources Act (CPR Act).

Under the NEB Act, the NEB's mandate includes environmental protection as a component of the public interest. The NEB also has environmental responsibilities under the *Canadian Environmental Assessment Act* (CEA Act) and the *Mackenzie Valley Resource Management Act*. In addition, certain Board inspectors are appointed Health and Safety officers by the Minister of Labour to administer Part II of the *Canada Labour Code* as it applies to facilities and activities regulated by the Board.

The NEB's mandate also includes the provision of expert technical advice to the Canada-Newfoundland Offshore Petroleum Board (C-NOPB), the Canada-Nova Scotia Offshore Petroleum Board (C-NSOPB), Natural Resources Canada (NRCan), and the Department of Indian and Northern Affairs (DIAND). The NEB Act requires that the Board keep under review matters relating to all aspects of energy supply, production, development and trade that fall within the jurisdiction of the federal government. The NEB may, on its own initiative, hold inquiries and conduct studies on specific energy matters as well as prepare reports for Parliament, the federal government and the general public. Upon request, the NEB provides advice to the Minister of Natural Resources and other government ministers, departments and agencies.

The NEB's corporate purpose is to promote safety, environmental protection and economic efficiency in the Canadian public interest! within the mandate set by Parliament in the regulation of pipelines, energy development and trade.



The NEB's vision is to be a respected leader in safety, environmental and economic regulation.

The public interest is inclusive of all Canadians and refers to a balance of economic, environmental, and
social interests that changes as society's values and preferences evolve over time. As a regulator, the Board
must estimate the overall public good a project may create and its potential negative aspects, weigh its
various impacts, and make a decision.

^{2.} The amount charged by pipeline companies for transporting energy and the conditions under which they provide service.

^{3.} Those lands in the North and in offshore areas that are not subject to a federal/provincial shared management agreement.

The NEB is a court of record and has the powers of a superior court with regard to compelling attendance at hearings, the examination of witnesses under oath, the production and inspection of documents, and the enforcement of its orders. The NEB Act provides for up to nine permanent Board Members, who are assisted by staff including financial analysts, environmental specialists, economists, engineers, geologists, geophysicists, and lawyers, among others. Public hearings are typically conducted by three Board Members, who constitute a quorum of the Board, with one acting as the Presiding Member. The Board's regulatory decisions and the reasons for them are issued as public documents.

Additional information on the background and operations of the NEB may be found at the Board's Internet site, www.neb-one.gc.ca.

REGULATORY HIGHLIGHTS

In 2004, the NEB considered applications for new pipeline facilities, new international power lines, tolls and tariffs filings, activities on frontier lands, and requests for changes to short-term export orders. The Board continued to monitor, assess and enforce compliance within the regulated industry through a comprehensive program of inspections and audits. The NEB also prepared reports on current and future energy market developments in Canada. These activities are summarized below:

Certificates, Orders, Permits and Applications Approved in 2004

 573 total Certificates, Orders, Permits and Letter Approvals

Construction and Operation of Pipelines and Power Lines under Parts III and III.1 of the NEB Act

• 100 Orders and Permits

Pipeline Tolls and Tariffs under Part IV of the NEB Act

27 Orders

Export of Natural Gas, Crude Oil and Electricity under Part VI of the NEB Act

• 363 Orders and Permits

Letter Approvals

• 83 Letters

Exploration and Production Activity in Frontier Areas under the COGO Act

49 applications approved

Activity in Frontier Areas under the CPR Act

- 3 Significant Discovery Declarations
- 4 Commercial Discovery Declarations

Proceedings

- 2 public hearings
- 34 public hearing days

Compliance Monitoring

- 84 inspections undertaken during construction
- 104 inspections of operating pipelines and facilities
- 4 management system audits

Appropriate Dispute Resolution Program

2 landowner files addressed

Publications Providing Energy Market Information

- Natural Gas Prices in the Maritimes (March 2004)
- Canada's Conventional Natural Gas Resources: A Status Report (April 2004)
- The British Columbia Natural Gas Market: An Overview and Assessment (April 2004)
- Canada's Oil Sands: Opportunities and Challenges to 2015 (May 2004)
- A Compendium of Electricity Reliability Frameworks Across Canada (June 2004)
- Looking Ahead to 2010: Natural Gas Markets In Transition (August 2004)

• Short Term Canadian Natural Gas Deliverability 2004 – 2006 (November 2004)

DEVELOPING REGULATIONS AND GUIDELINES

The Speech from the Throne 2004 renewed the 2002 federal government commitment to smart regulation as a key strategy in maintaining a Canadian advantage in a globally competitive world. In September 2004, the External Advisory Committee on Smart Regulation (EACSR) released its report, Smart Regulation: A Regulatory Strategy for Canada.

In keeping with the principles set out in the EACSR report, the NEB continued to develop its own smart regulation strategy based upon a goal-oriented approach to regulation, coupled with clear and predictable regulatory processes and effective cooperation and partnerships with government agencies and boards.

In the goal-oriented approach to regulation, the regulations identify the outcomes that they seek to attain, while allowing companies the flexibility to select the methods to achieve the outcomes. The goal-oriented approach promotes increased industry responsibility, allows for flexibility and efficiency, and provides opportunities to adopt improved operational and safety techniques in a more timely manner. It places an increased emphasis on risk assessment and the use of management systems.

As part of efforts to continually improve the regulatory framework, the NEB commissioned an evaluation on the effectiveness of its goal-oriented approach to regulation in 2004. The objectives of this report were to assess the effectiveness of goal-oriented regulation, to identify gaps in the current use of this approach and to develop specific actions for addressing these gaps. Both internal and external stakeholders were surveyed for their experiences and opinions. The evaluation found general support for goal-oriented regulation, both internally and externally, and made fourteen specific recommendations to improve the NEB's implementation

of goal-oriented regulation. The report can be viewed at: http://www.neb-one.gc.ca/Publications/index_e.htm#InternalAuditEvaluation.

With positive support for the goal-oriented approach, the Board began work on several new regulations this year, including new Submerged Pipeline Regulations using this approach. The NEB also began consultations on modifications to the National Energy Board Cost Recovery Regulations as a result of a request from the electricity industry. In addition, new Damage Prevention Regulations, and revised Canada Oil and Gas Diving Regulations, were submitted to the Department of Justice for examination pursuant to the Statutory Instruments Act.

The NEB was also active in developing and maintaining regulations regarding exploration and development activities under the COGO Act. These regulations, developed in co-operation with NRCan, the C-NOPB, the C-NSOPB, the Nova Scotia Department of Natural Resources and the Newfoundland Department of Mines and Energy, ensure common regulatory approaches for activities in the offshore regions, the Northwest Territories and Nunavut. In 2004, the NEB initiated revisions to:

- Canada Oil and Gas Drilling and Production Regulations; Newfoundland Offshore Area Oil and Gas Drilling and Production Regulations; and Nova Scotia Offshore Area Oil and Gas Drilling and Production Regulations;
- Amalgamation of Canada Oiland Gas Production and Conservation Regulations and Canada Oil and Gas Drilling Regulations in order to update and streamline its administration;
- Canada Offshore Oil and Gas Installation
 Manager Regulations; Newfoundland Offshore
 Oil and Gas Installation Manager Regulations;
 and Nova Scotia Offshore Oil and Gas
 Installation Manager Regulations in order to
 produce new regulations that are acceptable to

- the C-NOPB and the C-NSOPB regarding the qualifications of Offshore Installation Managers; and
- Oil and Gas Occupational Safety and Health Regulations in order to conform with the Canada Occupational Health and Safety Regulations under the Canada Labour Code.

The NEB also provided advice to Human Resources and Skills Development Canada (HRSDC) for the update of the *Oil and Gas Occupational Safety and Health Regulations* under the *Canada Labour Code*, Part II.

The Board continued to participate with industry, government and stakeholder groups in a number of initiatives to develop consensus-based standards, best practices and common approaches to safety and environmental issues. For example, the NEB participated in the Canadian Pipeline Environment Committee that produced the information document The Pipeline Industry and the Migratory Birds Convention Act.

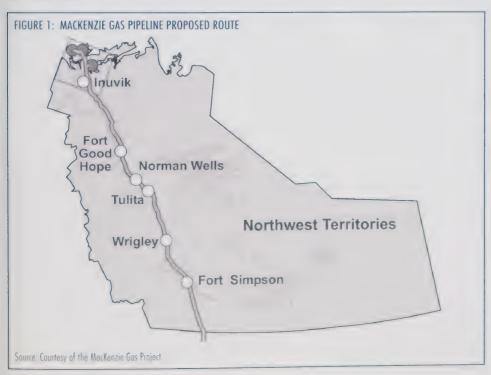
n 2004, the Board considered applications for new pipeline facilities, new international power lines, tolls and tariffs filings, applications for short-term export orders for oil and gas, and export permits for electricity. Appendices B, C and E contain details of regulatory decisions issued in 2004.

One new major facilities application was received in 2004. Applications for smaller pipelines, facilities expansions or power line facilities often require as much scrutiny from the Board as do major facilities applications. In considering an application, large or small, the Board is cognizant of its public interest responsibilities. The Board takes its role seriously when considering the balance of environmental, economic and social interests.

PIPELINE FACILITIES

Mackenzie Gas Project

The Board has received five applications from Imperial Oil Resources Ventures Limited (Imperial) and other applicants for the construction and operation of the Mackenzie Gas Project in Northern Canada (Figure 1). The proponents of the Mackenzie Gas Project are Imperial Oil Resources Ventures Limited, Mackenzie Valley Aboriginal Pipeline Limited Partnership, Imperial Oil Resources Limited, ConocoPhillips Canada (North) Limited, ExxonMobil Canada Properties and Shell Canada Limited. The applications were filed in October 2004.







The pipeline project would be anchored by three onshore natural gas fields known as Taglu, Parsons Lake and Niglintgak and operated by Imperial Oil, ConocoPhillips, and Shell Canada, respectively. Development plans for these three fields have been filed with the NEB. Imperial has also applied for approval to construct a 176 kilometre gas gathering system to collect the gas from the three fields and deliver it to a processing facility near Inuvik. At the processing facility, natural gas liquids would be separated out. The natural gas would enter the proposed 1 220 kilometre pipeline and the liquids would enter a smaller, parallel pipeline of approximately 475 kilometres that would connect to the Enbridge Pipelines (NW) Inc. pipeline at Norman Wells.

The 762 millimetre (30 inch) natural gas transmission pipeline is planned to transport 34 million cubic metres (1.2 billion cubic feet) per day. The capital cost of the Mackenzie Gas Project is estimated at over \$7 billion. The proponents plan to have it in operation by 2009.

The NEB Hearing Order GH-1-2004 issued in November 2004 is available on the NEB Internet site. The hearing will obtain evidence and views of interested persons with respect to the Mackenzie Gas Project. The NEB hearing process will be coordinated with the Environmental Impact Review of the Mackenzie Gas Project by the Joint Review Panel as contemplated by the Cooperation Plan for the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline Project through the Northwest Territories (Cooperation Plan), dated June 2002. A date has not been set for the commencement of the oral public hearing.

TOLLS AND TARIFFS MATTERS

TransCanada 2004 Tolls Application Phase I

In March 2004, the Board issued Hearing Order RH-2-2004 establishing a two-phase oral public hearing to consider TransCanada PipeLines Limited's

2004 Tolls Application. Phase I considered all issues raised by the 2004 Tolls Application, with the exception of cost of capital. Phase II of the hearing is considering cost of capital issues.

In September 2004, the Board released its RH-2-2004 Phase I Decision. Subject to any impact resulting from the Phase II Decision, the Board approved a Net Revenue Requirement for 2004 of \$1.7 billion and a rate base of \$8.2 billion. This compares to the 2003 Net Revenue Requirement of \$1.9 billion and a rate base of \$8.6 billion. In addition, the Board approved TransCanada's proposal for a non-renewable firm transportation service which will be a biddable service providing term-limited blocks of capacity made available when TransCanada awards firm contracts commencing more than one year in the future. However, the Board denied the proposed continuation of a modified 2003 Fuel Gas Incentive Program for 2004 and stated that it expects parties to negotiate a mutually satisfactory Fuel Gas Incentive Program to be filed for 2005. The Board also directed that TransCanada work with its Tolls Task Force to develop a revised Code of Conduct and file it with the Board no later than 28 February 2005. On 12 November 2004, CAPP applied for a review of the Board's RH-2-2004, Phase I Decision with respect to TCPL's 2004 Mainline Tolls. In November 2004, Phase II of RH-2-2004 commenced and continued into 2005.

TransCanada North Bay Junction

The Board convened the RH-3-2004 proceeding in August 2004 to consider TransCanada's application to establish a new receipt and delivery point at North Bay Junction (NBJ) on TransCanada's Mainline. The Board also considered alternative proposals from other parties for the establishment of additional receipt and delivery points. In its December 2004 decision, the Board approved NBJ as a new receipt and delivery point and directed that the corresponding tolls to and from the point be set in accordance with the established tolling methodology. The Board denied proposals to establish new receipt and delivery points

at Parkway (near Oakville, Ontario) and at St-Nicolas (near Quebec City, Quebec). The Board also denied a proposal to designate domestic delivery areas as receipt points for storage injection purposes. The Board found that there was insufficient information to assess the potential impacts of these alternative proposals. To facilitate the future assessment of similar proposals, the Board directed TransCanada to file, no later than 28 February 2005, proposed tariff additions codifying the information TransCanada requires, the criteria to be applied by TransCanada, and the expected timeframe required by TransCanada to evaluate and respond to proposals for new receipt and delivery points.

Westcoast Energy Inc.

The Board approved interim tolls for Westcoast for 2004 and set its application for final 2004 tolls down for hearing. As part of its consideration of the application, the Board held a pre-hearing conference in January 2004 to determine the issues to be addressed in disposing of the application as well as the appropriate process and timing to deal with the issues. In April 2004, the Board suspended the schedule for the hearing process due to parties reaching an agreement in principle on the terms of a settlement. Westcoast submitted a final settlement for 2004 and 2005 tolls in July 2004 and the settlement was approved by the Board in August 2004. In December 2004, Westcoast applied for and received approval for interim 2005 tolls and the inclusion in tolls of certain costs associated with the Southern Mainline Expansion.

Financial Audits

The Board periodically performs financial audits of regulated pipeline companies. Financial audits are an important tool to ensure compliance with regulations, orders and decisions as well as documenting the extent to which pipeline companies operate with due regard for economy and efficiency. Financial audits provide a means for the Board to determine whether cross-subsidies have been made at the expense of

tollpayers and to enhance its knowledge of the company and its operations.

In 2004 financial audits were completed on the Mainline operations of TransCanada PipeLines Limited, Enbridge Pipelines Inc. and Express Pipeline Limited Partnership. This was a continuation of the process started in 2003 when the Board completed an audit of Maritimes and Northeast Pipeline Management Limited as the first step in ensuring that all NEB-regulated major pipeline companies are audited regularly. This will enable the Board to maintain current information in the Board's audit files on those companies.

POWER LINE FACILITIES

The NEB rendered one decision on proposed international power lines during 2004.

The Board denied an application by Sumas Energy 2, Inc. (SE2) to construct the 8.5 kilometre Canadian portion of an international power line (IPL) originating at the Canada/United States international boundary near Sumas, Washington and running to a BC Hydro substation in Abbotsford, British Columbia. The IPL would have permitted SE2 to transport electricity from a proposed Power Plant to be constructed in Sumas to BC Hydro's substation.

The Board decided that it could not conclude that the IPL would be in the Canadian public interest and would be required for the present and future public convenience and necessity. After identifying and weighing the benefits and burdens in Canada of the proposed IPL and Power Plant, the Board concluded that, on balance, the burdens of the IPL outweighed the benefits.

The Board determined that the IPL and Power Plant would not have substantial benefits for Canadians or for the local and regional communities, even if all benefits were realized.

The Board found that the burdens in Canada associated with the IPL and Power Plant would be numerous and real. Most would be borne almost entirely by the local and regional communities, whereas the benefits would be either external to these communities or negligible in value.

The Board considered the application during 39 days of public hearings over the course of 7 months in Abbotsford, BC.

ACTIVITY IN FRONTIER REGIONS

In 2004, the greater part of the exploratory drilling and geophysical programs were in the Mackenzie Delta and Central Mackenzie regions. Geological and geophysical activity levels remained comparable to 2003, while drilling activities decreased slightly.

The Board continued to assess applications and monitor approved activities and facilities through inspections of frontier projects. Activity was mostly related to the development of producing fields and exploratory drilling. Production continued from the Liard field to the Fort Nelson Gas Plant in 2004, despite a change in operators. Production operations also continued from the Ikhil gas field, the Norman Wells oil field, the three producing gas fields in the Fort Liard region and the combined oil and gas field in the Cameron Hills region.

During 2004, the Board made four Commercial Discovery Declarations pursuant to the NEB and CPR Acts. Three of the Commercial Discovery Declarations were in the Mackenzie Delta region and the fourth was in the southern NWT. The Board also made three Significant Discovery Declarations in the southern NWT pursuant to the NEB and CPR Acts.

Offshore drilling activity in the Beaufort Sea region has been absent for 13 years. Devon Canada Corporation is proposing to conduct a four well drilling program in its exploration license 420 area. Federal regulators and the Inuvialuit developed a coordinated environmental review process which met the requirements of both the Inuvialuit Final Agreement and the Canadian Environmental Assessment Act. The NEB was the lead responsible authority for the preparation and review of the comprehensive study report which is the federally required environmental assessment for Devon's proposed program. The NEB's environmental review is expected to be completed in early 2005. Technical review of Devon's proposed drilling program will be conducted when Devon submits its Drilling Program Approval application, expected in early 2005. Devon hopes to drill the first of four wells in the winter of 2005/06.

REGULATORY COOPERATION IN THE NORTH

Implementation of the Cooperation Plan continued through 2004, with ongoing involvement by the 12 agencies with responsibilities for a pipeline. The Northern Gas Project Secretariat, established pursuant to the Cooperation Plan to support the review of the Mackenzie Gas Project and provide a public window on the project, continued its operations from Yellowknife and opened an office in Inuvik in April 2004. Formal applications for the Mackenzie Gas Project were filed by Imperial Oil Resources Ventures Limited on behalf of itself and its partners in October 2004. See the previous Pipelines Facilities section for further details.

PREPARING FOR THE FUTURE

Liquefied Natural Gas (LNG) Activities

In May 2004, Gaz Métro Limited Partnership, Gaz de France and Enbridge Inc. submitted a project description to the Canadian Environmental Assessment Agency (Agency) for the development of their Rabaska Project. The project, proposed for the Ville Guay/Beaumont area of the Province of Quebec, includes a terminal comprising two storage tanks, a marine jetty to receive LNG tankers, pumping, compression and vaporizing facilities and a pipeline of approximately 50 kilometres in length to connect the terminal to

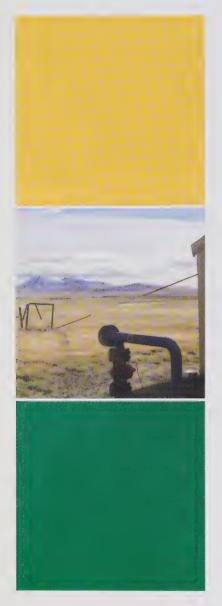
the existing facilities of Gazoduc Trans Québec & Maritimes Inc. in St. Nicolas.

The Rabaska Project is subject to a comprehensive study under the Canadian Environmental Assessment Act. The NEB, Fisheries and Oceans Canada, Transport Canada and the Canadian Transportation Agency are the responsible authorities that shall ensure that an environmental assessment of the project is undertaken. In October 2004, the responsible authorities submitted their report entitled Rabaska Project - Environmental Assessment Track Decision Report to the Minister of the Environment with a recommendation that the Rabaska Project environmental assessment be undertaken by means of a panel review. In anticipation of the Minister's decision, the NEB is discussing options with the Agency and the responsible authorities to further assist in streamlining the conduct of the Rabaska Project review process.

In October 2004, the NEB determined that it is not likely to be a responsible authority for the proposed Énergie Cacouna Project involving facilities for the importation, storage, and regasification of LNG at Gros-Cacouna, Quebec.

In preparation for potential applications for LNG facilities, Board staff has been meeting with regulatory experts at the Federal Energy Regulatory Commission (FERC) in the United States to discuss FERC's regulatory processes and to develop a better understanding of the key issues to examine in assessing an application for LNG facilities. Staff also visited an operating LNG facility in the United States to learn more about the safety and operational aspects of such facilities.

In February 2004, Board staff participated in an LNG workshop hosted by Environment Canada in Halifax which focussed primarily on sharing regulatory experiences regarding environmental issues for LNG facilities in North America. A second LNG workshop for federal and provincial departments and agencies with an interest in LNG facilities is being organized by Board staff in cooperation with the Nova Scotia Department of Energy. This workshop will focus on what regulators need to know when examining the safety and technical components related to the construction and operation of an LNG facility and will be held in Montreal in January 2005.



In order to keep Canadians informed about trends and issues in energy markets on an ongoing basis, the Board conducts extensive market monitoring for all of the commodities it regulates. This overview provides a summary of Canadian energy supply, consumption, production, prices, and trade over the past five years, with a focus on 2004. The Appendices, prepared as a companion document to this Annual Report, provide details on supply and disposition of crude oil, natural gas, natural gas liquids and electricity, as well as on industry activity, facility certificates, orders and licenses for exports and pipeline financial information (see the List of Appendices in Supplement VI).

In 2004, Canadian energy markets were characterized by high and volatile commodity prices, continuing the trend experienced in 2003. Since most energy commodities are traded in US dollars, Canadian commodity prices would have been even higher if not for a 10 percent appreciation in the Canadian to US dollar exchange rate. The year was also marked by record industry activity levels, as measured by the active drilling rig count and the number of wells drilled.

Underpinned by the largest oil demand growth in several years and the influence of rising geopolitical tensions, world crude oil prices averaged US\$41.50 for West Texas Intermediate (WTI), some 34 percent higher compared with 2003. WTI began the year at US\$32.50 per barrel, but reached a peak of over US\$56 per barrel in late October, before easing to US\$42 by year-end.

Domestically, Canadian crude oil markets saw the continuation of a trend whereby declining conventional oil production in the Western Canada Sedimentary Basin (WCSB) was more than offset by expanding production from the oil sands. This expanding production, and the increasing recognition outside of Canada of the vast size of Alberta's oil sands reserves, led to significant interest in oil sands development from foreign entities, especially China. On the East Coast, production declined slightly due to equipment problems at the Terra Nova Field, offshore Newfoundland, near year-end.

Canadian production of natural gas remained essentially flat in 2004 reflecting the maturing state of exploration and development within the WCSB. In 2004, 15 674 gas wells were drilled in Canada setting a new record, for the second consecutive year. However, due to the continuing trend of lower initial productivity exhibited by new wells, production remained at 2003 levels. At Sable Island, offshore Nova Scotia, gas production for 2004 averaged 11.54 10⁶m³ (400 MMcf/d), a seven percent decrease from 2003.

The absence of significant growth in North American gas production, combined with high demand for gas and the supporting effect of higher crude oil prices contributed to natural gas prices remaining above \$5.00 per gigajoule across most Canadian and U.S. markets in 2004.

In 2004, Canadian electricity markets featured continuing efforts to restructure the industry. Nova Scotia put in place its restructuring plans with the passage of its Electricity Act (2004) while New Brunswick opened its markets, providing competitive access to wholesale customers and large industrial customers. The Ontario government passed its Electricity Restructuring Act, a main feature of which was the creation of the Ontario Power Authority, with responsibility for ensuring future power supplies for Ontario. The Ontario government also set out plans to phase out its coal-fired generation by the end of 2007.

The final report of the Canada-U.S. Task Force examining the August 2003 blackout recommended, among other things, that mandatory reliability standards be put in place. In anticipation of mandatory standards, various industry and government agencies in Canada and the U.S. have begun administrative actions to address the implementation and operation of an Electric Reliability Organization (ERO). In December 2004, the NEB participated in a joint Canada-U.S. workshop which examined how Canadian interests would be represented in the ERO.

Electricity production was down slightly. Despite improved water conditions in many parts of Canada, hydro generation declined by two percent as hydro provinces conserved water in order to rebuild depleted reservoirs. Higher prices for fuel led to a nine percent decrease in thermal generation, while nuclear generation gained 20 percent over the previous year. On the demand side, mild weather through much of the year suppressed cooling and heating demand, resulting in reduced imports and a five percent increase in exports compared with 2003.

ENERGY AND THE CANADIAN ECONOMY

In 2004, the energy industry accounted for about six percent of Canada's Gross Domestic Product (GDP) and employed just over 300 000 people, representing approximately 1.8 percent of the Canadian labour force. Energy export revenue of approximately

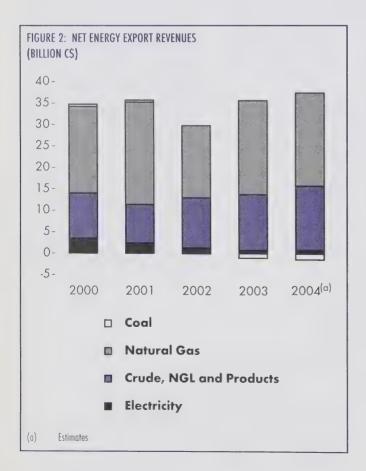
\$58.9 billion accounted for an estimated 15 percent of all Canadian exports, virtually unchanged from 2003.

The weakening U.S. dollar slowed the demand for Canadian exports in 2004 because of the reduction in U.S. purchasing power. However, Canada's real GDP gained three percent compared with two percent in 2003. This increase was supported by low interest rates creating strong domestic demand. During the 2000 to 2004 period, Canada's real GDP increased an average of 2.6 percent per year.

Total Canadian energy production (Table 1) increased by slightly more than two percent in 2004 compared with a decline of 0.2 percent in 2003. Petroleum and natural gas accounted for over 75 percent of total energy production. While petroleum production, the largest contributor to the rise in total energy production this year, experienced a 2.2 percent increase, export revenues remained similar to 2003 levels because high oil prices were offset by the appreciating Canadian dollar. Hydroelectric production declined for the second year in a row as producers recovered from drought conditions. The declining trend in coal production moderated in 2004, reflecting a surge in export coal demand that led to the opening of several new mines. "Renewables and Other" energy sources increased by nearly four percent. Nuclear energy production, the second largest contributor to the overall

	2000	2001	2002	2003	200410
Petroleum ^(b)	5 672	5 712	5 986	6 323	6 460
Natural Gas	6 405	6 536	6 559	6 351	6 387
Hydroelectricity	1 272	1 182	1 245	1 198	1 189
Nuclear	794	837	824	817	987
Coal	1 510	1 533	1 430	1 326	1 320
Renewables and Other(1)	627	588	631	633	657
lotar	16 280	16 388	16 675	16 648	17 000
Estimates					
Petroleum includes o	rude oil and ag	s plant natural	gas liquids (NC	il's)	

	2: DOMESTIC EN OULES)	ERGY CONSU	MPTION(a)			
		2000	2001	2002	2003	2004 ^(b)
Space He	eating	1 934	1 885	1 970	2 065	2 111
Transpor	tation	2 280	2 240	2 250	2 242	2 165
Other Us	es ^(c)	3 162	3 050	3 164	3 298	3 397
Non-Ener	rgy ^(d)	790	863	894	903	924
Electricity	y Generation ^(e)	1 804	1 841	1 911	1 850	1 832
Total		9 971	9 879	10 189	10 358	10 425
(a) (b) (c)	Includes consumption Estimates Includes energy used industrial sector	·		tion as well as	a variety of u	ses in the
(d)	Includes energy used lubricants, etc.	d for petrochemic	cal feedstocks,	anodes/catho	des, greases,	
(e) Source:	Includes producer consumption an losses as well as nuclear energy conversion requirements Statistics Conada, NEB					



overall rise in production, increased over 20 percent, or 170 petajoules. This increase can be attributed to three refurbished Ontario nuclear generators that came back on line late in 2003 and early 2004.

Preliminary estimates indicate that domestic energy consumption increased by nearly one percent in 2004. During the 2000 to 2004 period, Canadian energy consumption increased an average of 1.1 percent per year, compared with the rising average real GDP rate of 2.6 percent per year. This indicates a continued decline in the energy intensity of the economy (Table 2).

In 2004, the gross export revenues from natural gas, petroleum, electricity and coal were almost \$59 billion, about one percent lower than 2003 levels. Canada's energy trade surplus (the value of energy exports minus value of energy imports) was \$36.2 billion, up from \$34.6 billion in 2003 (Figure 2). This gain can be largely attributed to a decline in crude oil, NGLs and petroleum products imports.

UPSTREAM OIL AND GAS ACTIVITY

After a record year in 2003, a majority of upstream indicators continued to show growth in 2004 in response to high commodity prices throughout the year. A record 21 671 wells were drilled in the WCSB in 2004 which exceeded the previous 2003 high of 19 957 wells drilled (Figure 3). High natural gas prices kept the focus on drilling for natural gas through 2004, with gas well completions making up 72 percent of all wells completed. In 2004, oil well completions were only two percent higher than 2003, in spite of the oil price increases throughout the year. The proportion of dry wells drilled remained at six percent. Increased well counts are also due to continued advancements in drilling technology and demand growth in North America.

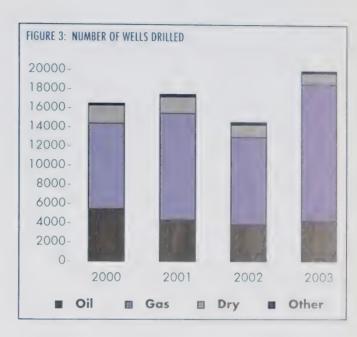
In 2004, high oil and gas prices helped to increase Western Canadian rig activity, with the average monthly rig count increasing five percent to 414 operating rigs. New drilling rigs continue to be built in response

to the high demand in the field; however, there are related challenges, such as ensuring the availability of sufficient personnel to operate the increasing number of rigs and the availability of sufficient geoscience and engineering professionals to identify additional drilling prospects. The most active drilling areas continue to be Northeastern British Columbia, the Alberta Foothills, Southeast and Central regions with drilling activity showing increases of 16, 32, 14 and 11 percent respectively from 2003.

Competition for land rights softened in 2004, with revenue from land sale bonuses collected by the Western Canadian provinces decreasing to \$1.4 billion, down 16 percent from 2003. The average price per hectare remained at \$346 in 2004. Record Alberta sales partly account for this, along with the heightened interest in areas involving natural gas from coals (NGC) and the oil sands. The Foothills and Southeast regions of Alberta also continued to attract interest, while in British Columbia and Saskatchewan land acquisitions were less than in 2003. The results of a Call for Bids for exploration rights in Newfoundland and Labrador showed renewed interest in the Jeanne d'Arc Basin, with all five parcels receiving bids for a total commitment of more than \$71.1 million.

Seismic survey activity continued to decrease in 2004, with the number of active crews down 24 percent over the previous year. This level of activity is well below the five-year average and represents the latest actions by producers to put emphasis on exploration and development in areas that have already been surveyed. Seismic activity in Western Canada was focused in the Southwest and Central regions of Alberta, as well as in the Northeast region of British Columbia. On the East Coast, there were a total of 16 seismic crews working in the area during 2004. On average, there was a least one crew count per month. Overall, this represents approximately four percent of the seismic survey activity that occurred in Canada.

Capital expenditures by the conventional oil and gas industry in Canada totaled approximately \$24.4 billion



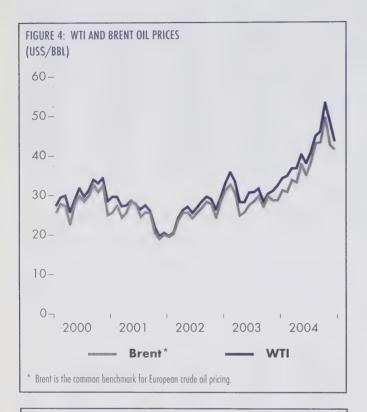
in 2004, a jump of 2.5 percent from 2003. Sustained high prices for natural gas and crude oil and increased drilling activity resulted in increased capital expenditures.

CRUDE OIL AND NATURAL GAS LIQUIDS

International Markets

World crude oil prices were very high in 2004 underpinned by the largest oil demand growth in several years and the influence of rising geopolitical tensions (Figure 4). West Texas Intermediate began the year around US\$32.50 per barrel with the May average over US\$40 against a backdrop of extremely tight worldwide inventories and political tensions in Saudi Arabia, Venezuela, Nigeria and Iraq. WTI reached an average of nearly US\$46 in September reflecting ongoing hostilities in Iraq and fears that the political and financial crisis surrounding the large Russian oil producer, Yukos, could result in reduced output. By late October, WTI reached its peak for the year, exceeding US\$56 per barrel, when Hurricane Ivan significantly affected Gulf of Mexico production. Prices then declined following announcements of an improving inventory situation and closed the year at approximately

US\$43.50 per barrel. WTI averaged about US\$41.50 in 2004, an increase of more than US\$10 per barrel (or 33 percent) over 2003.



		L AND NATU	RAL GAS L	IQUIDS
2000	2001	2002	2003	2004 ^(a)
23.6	24.3	46.0	54.1	50.6
108.3	103.9	96.0	92.1	87.5
50.1	54.7	69.1	82.7	99.3
27.3	25.8	25.2	25.8	24.2
209.3	208.7	236.3	254.7	261.6
89.0	90.9	88.0	86.7	86.6
44.4	47.7	47.4	51.1	55.8
133.4	138.6	135.4	137.8	142.4
342.7	347.3	371.7	. 392.5	404.0
99.8	92.9	96.8	97.7	95.1
	2000 23.6 108.3 50.1 27.3 209.3 89.0 44.4 133.4	2000 2001 23.6 24.3 108.3 103.9 50.1 54.7 27.3 25.8 209.3 208.7 89.0 90.9 44.4 47.7 133.4 138.6	2000 2001 2002 23.6 24.3 46.0 108.3 103.9 96.0 50.1 54.7 69.1 27.3 25.8 25.2 209.3 208.7 236.3 89.0 90.9 88.0 44.4 47.7 47.4 133.4 138.6 135.4 342.7 347.3 371.7	2000 2001 2002 2003 23.6 24.3 46.0 54.1 108.3 103.9 96.0 92.1 50.1 54.7 69.1 82.7 27.3 25.8 25.2 25.8 209.3 208.7 236.3 254.7 89.0 90.9 88.0 86.7 44.4 47.7 47.4 51.1 133.4 138.6 135.4 137.8 342.7 347.3 371.7 392.5

The Organization of Petroleum Exporting Countries (OPEC) held five meetings in 2004 to review the worldwide supply and demand situation and establish its production quotas. In February, OPEC announced a reduction in its quotas of 1.0 million barrels per day, to 23.5 million barrels per day, effective 1 April. At its June session, OPEC agreed to increase quotas by 2.5 million barrels per day in two stages to 26.0 million barrels per day. OPEC further increased its quotas at its September meeting to 27.0 million barrels per day. At its last meeting of the year in December, OPEC decided to maintain its quotas but will meet early in 2005 to review market conditions in advance of the seasonal downturn in demand.

Canadian Production and Reserves Replacement

In 2004, Canadian production of crude oil and equivalent established a new record, with production estimated at 404 000 m³/d, up by nearly three percent from 2003 levels. This growth reflects increased synthetic and bitumen production from Western Canada which offset declining WCSB conventional crude oil production and a slight decline in Eastern Canada offshore production (Table 3).

Production in offshore Newfoundland and Labrador was down by about seven percent to 50 500 m³/d, reflecting the shut-in of the Terra Nova Field for 35 days late in the year, following an oil spill. In Western Canada, crude oil and equivalent supply increased by about 2.8 percent in 2004. Conventional light crude oil production declined by five percent. This is a continuation of a long-term trend that reflects natural decline in light oil reservoirs in the WCSB. Conventional heavy crude oil production levels remained virtually unchanged, but are down some four percent below peak production levels reached in 2001.

While remaining established reserves are reduced by production each year, new discoveries, extensions to existing pools and revisions to reserves estimates in existing pools usually add to reserves. From 1999 to 2003, on a cumulative basis, additions to established

reserves of conventional light and heavy crude oil replaced 94 percent of production (Table 4).

The NEB's estimate of total remaining Canadian conventional crude oil and crude bitumen reserves at year-end 2003 (the last year for which complete data is available) is 28.4 billion cubic metres, which is essentially unchanged from 2002 (Table 5). This means that reserves additions fully offset production for the year. Estimates of remaining conventional crude oil reserves in Canada decreased by 5.1 percent to 655 million cubic metres for 2003, but this was offset by an increase in estimates for in situ bitumen in Alberta's oil sands areas.

Oil Sands

Estimates of initial reserves of crude bitumen for year-end 2003 (latest available) indicate an increase of 62 million cubic metres while bitumen production totalled 56 million cubic metres, thus, remaining established reserves increased slightly to 27.73 billion cubic metres (Table 5). The existence and importance of this very large reserve in the context of world oil supply became more widely acknowledged in 2004, following official recognition in late 2003 by the *Oil and Gas Journal* in its annual summary of world oil reserves.

The oil sands are becoming an increasingly important source of crude oil production for Canada, with 2004 production of 155 000 m³/d, up by 16 percent over 2003, and making up some 38 percent of total crude oil and equivalent production in Canada (Figure 5). Production would have been somewhat greater except for an interruption in operations at the Scotford Upgrader located near Edmonton, Alberta. One of two production trains was shut in for maintenance and repairs from October 2004 through January 2005, reducing overall throughput by 35 percent, or about 11 000 m³/d.

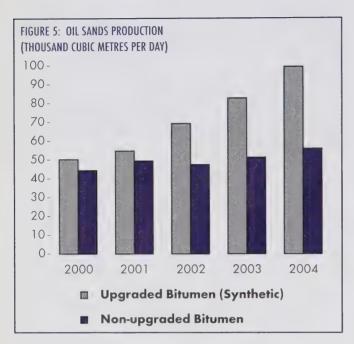
Encouraged by sustained higher prices for crude oil in 2004 and the prospect of tighter world oil markets over the longer term, industry announced several new oil sands projects and project expansions in Alberta. There

was also significant interest expressed by foreign entities regarding participation in developing the oil sands.

Shell Canada Limited announced it will spend \$4 billion to nearly double bitumen production from

TABLE 4: CONVENTIONAL CRUDE OIL RESERVES, ADDITIONS AND PRODUCTIO 1999-2003 (MILLION CUBIC METRES)							
	1999	2000	2001	2002	2003	Total	
Additions(a)	129	78.8	35	88.1	53.1	384	
Production	78	79.1	84	81.0	85.0	407	
Total Remaining Reserves	702	700.0	680	690.0	655.0		
Total in Millions of Barrels	4 414	4 425.0	4 346	4 348.0	4 120.0		
(a) Terra Nova reserves (added in 199	9 and White	Rose reser	ves added in	2002		

Conventional Crude Oil	Initial	Remaining	
British Columbia ^(o)	124.4	22.2	
Alberta ^(b)	2 634.1	253.9	
Saskatchewan	823.2	176.9	
Manitoba ^(c)	42.0	5.9	
Ontario ^(d)	14.7	2.0	
NWT and Yukon:			
Arctic Island and Eastern Arctic Offshore(e)	0.5	0.0	
Mainland Territories - Norman Wells	52.9	18.1	
Nova Scotia - Cohasset and Panuke ^(c)	7.0	0.0	
Newfoundland - Hibernia and Terra Nova and White Rose ^(c)	239.0	176.0	
Total	3 937.8	655.0	
Total in Millions of Barrels	24 766.0	4 119.5	
Crude Bitumen			
Oil Sands - Upgraded Crude ^(h)	5 590.0	5 130.0	
Oil Sands - Bitumen ^(b)	22 800.0	22 600.0	
Total	28 390.0	27 730.0	
Total in Millions of Barrels	178 857.0	174 699.0	
Total Conventional and Bitumen	32 327 8	28 385 0	
Total in Millions of Barrels	203 623.0	178 818 5	
British Columbia Ministry of Energy & Mines and NEB Alberta Energy & Utilities Board and NEB common dat Provincial Agencies or Offshore Board estimates Canadian Association of Petroleum Producets Bent Horn abandoned 1996 Totals may not add due to rounding			



the Athasbasca Oil Sands Project to about 45 000 m³/d by 2010. Shell is planning to implement a number of projects to improve efficiency at the Muskeg River mine and Scotford upgrader, as well as further expansion of these facilities.

Husky Energy Inc. plans to proceed with a \$500 million steam-assisted-gravity-drainage (SAGD) project at Tucker Lake. This project is expected to produce 4 800 m³/d of bitumen when it comes on stream in 2006.

Suncor Energy Inc. approved funding for a \$2.1 billion upgrader expansion, which includes the addition of new coking facilities. Suncor also plans to spend \$1.5 billion to increase production at its in-situ and mining and extraction facilities, with total capacity expected to reach 56 000 m³/d by 2008.

Canadian Natural Resources Limited approved plans for a \$250 million cyclic-steam-stimulation (CSS) project at Primrose, designed to add an incremental 7 900 m³/d of bitumen production by 2007.

During 2004, a number of initiatives were undertaken to secure additional markets and transportation access in the United States for expanding oil sands production. Suncor will spend \$300 million to modify the company's Denver refinery, to meet clean fuels regulations and to accommodate up to 2 400 m³/d of oil sands sour crude blends. Seeking to provide a dedicated market for some of its growing bitumen production, EnCana Midstream & Marketing has signed a Memorandum of Understanding (MOU) with The Premcor Refining Group Inc., to conduct a preliminary design and engineering study of the modifications necessary to upgrade Premcor's existing refinery at Lima, Ohio to process an estimated 31 700 m³/d of blended EnCana heavy oil. In December, Enbridge announced plans to proceed with its Spearhead pipeline project, subject to regulatory approval. By reversing the flow of the line, which historically operated in southto-north service between Cushing, Oklahoma and Chicago, Illinois, the Spearhead Pipeline will provide crude oil transportation service from the Enbridge main line system at Chicago to the storage and refining hub at Cushing. In a similar vein, Canadian oil firms are in talks with ExxonMobil Corporation about reversing the flow of its pipeline system that currently runs to Illinois from Texas.

For further information on oil sands, readers may refer to the Board's May 2004 report titled *Canada's Oil Sands: Opportunities and Challenges to 2015*, which discusses the current state of the oil sands industry, its potential for growth and the major issues facing the industry. This report can be found on our Internet site at http://www.neb-one.gc.ca/energy/EnergyReports/index_e.htm#OilSands.

CRUDE OIL EXPORTS AND IMPORTS

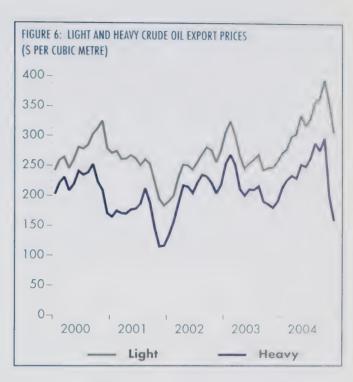
Total crude oil exports, including pentanes plus and upgraded bitumen (synthetic crude), are estimated at 260 500 m³/d, an increase of 14 700 m³/d over 2003. The 2004 total consisted of 38 percent light crude oil and equivalent and 62 percent blended heavy crude oil.

As a result of high crude oil prices throughout 2004, the estimated value of crude oil exports in 2004 was \$26.1 billion, up substantially from \$20.8 billion in 2003. In 2004, the estimated average light and heavy crude oil export prices were \$52 and \$38 per barrel (\$326 and \$242 per cubic metre) respectively, compared with \$42 and \$34 per barrel (\$267 and \$213 per cubic metre) in 2003 (Figure 6).

High prices for the benchmark crude, WTI, were supported by the tight light crude oil supply situation, with light sweet crude oil prices continuing to strengthen through the year reflecting the high demand for light refined petroleum products. The light/heavy price differential widened in 2004, averaging \$16 per barrel (\$101 per cubic metre) compared with \$11.55 per barrel (\$72.60 per cubic metre) in 2003. The differential increased substantially in the second half of the year, reaching nearly \$25 per barrel (\$158 per cubic metre) by year end. When OPEC production increased in 2004, it was in the medium to heavy sour crude oil types, putting more pressure on heavy oil prices. The situation was further exacerbated by the refinery maintenance schedule in U.S. Petroleum Administration for Defense District (PADD) II and III that increased the heavy crude oil available to the market.

In the second half of 2004, Canada became the leading export country to the U.S. for crude oil. Canada usually vies with Mexico for second place behind Saudi Arabia. High oil demand, especially during the summer gasoline season, resulted in North American refineries operating over 95 percent of capacity. The U.S. Midwest is the most significant market for western Canadian crude oil. The refining centres of Chicago, Illinois, Twin Cities, Minnesota and Toledo, Ohio consumed 51 percent of total Canadian crude oil exports (Figure 7) in 2004. These markets combined increased their demand by 4 000 m³/d over 2003.

With conventional crude oil production declining, the increase in exports resulted primarily from higher volumes of synthetic and heavy bitumen grades. One of the largest increases in 2004 was in the refining market



of Anacortes, Washington, where demand for Canadian crude oil grew by 6 200 m³/d, or 72 percent, mainly as a result of a shortage of Alaska North Slope crude oil.

The export market for eastern Canadian offshore production has been primarily the U.S. East Coast. In 2004, of the offshore crude oil exports, 77 percent was delivered to PADD I, 13 percent to the U.S. Gulf Coast and 10 percent to foreign markets.

In 2004, crude oil imports were 151 100 m³/d and represented 50 percent of total refinery feedstock requirements in Canada. Crude oil requirements for the Atlantic region and Quebec were met by imports as well as volumes of East Coast domestic production. Ontario refiners received about 40 percent of their feedstock requirements from foreign sources in 2004, an increase from 34 percent in 2003.

OIL REFINING

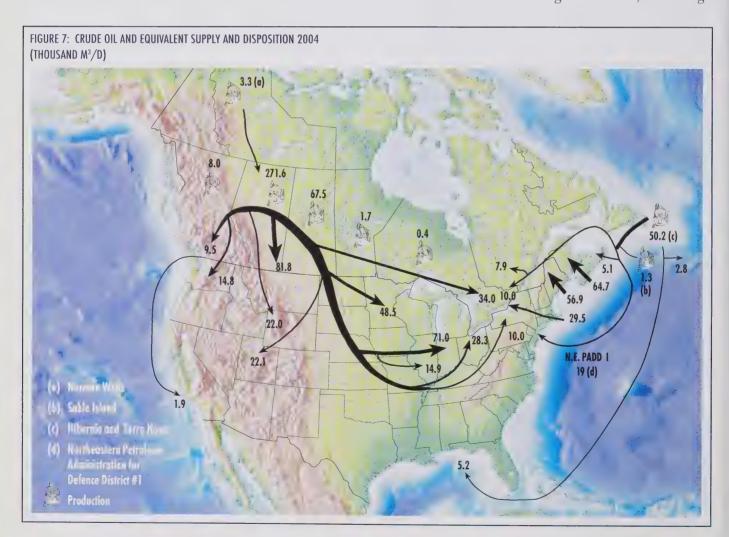
Canadian refining capacity in 2004 was 329 800 m¹/d, a slight increase over 2003, as a result of a small expansion in Western Canada.

In 2004, the demand for petroleum products in Canada averaged 235 800 m³/d, a marginal increase from 2003. Refinery production of these main products declined slightly to 264 500 m³/d. Refinery receipts of domestic crude oil averaged 148 700 m³/d, reflecting the increase in refining capacity. Commercial inventories of petroleum products in Canada closed the year slightly higher than in the previous year.

Main Petroleum Product Exports and Imports

Historically, Canada has been a net exporter of main petroleum products including motor gasoline and middle distillates (jet fuel, kerosene, heating oil and diesel), exporting amounts in excess of Canadian demand. For 2004, exports of main petroleum products and partially processed oil are estimated at 56 895 m³/d, a less than one percent decrease from 2003. Refinery maintenance issues and mild temperatures in the U.S. Midwest were key contributors to this decline.

The estimated revenue from main petroleum product exports, including partially processed oil, was \$5.8 billion in 2004, up from \$4.9 billion in 2003. The increase is a consequence of high North American demand for gasoline and distillates resulting in record high distillate and gasoline prices in the spring. Although prices declined and stabilized during the summer, record high



crude oil prices in the fall resulted in a subsequent surge in petroleum product prices in the month of October.

The U.S. continued to be the largest buyer of Canadian produced petroleum products, accounting for approximately 96 percent of total exports. Exports were also made to Europe, South America and Aruba. The U.S. East Coast continued to be the largest market, followed by the West Coast and the Midwest.

Imports of main petroleum products in 2004 are estimated at 27 067 m³/d, a 13 percent increase from 2003.

Natural Gas Liquids (excluding Pentanes Plus)

Natural gas liquids (NGLs) refer to the collective stream of hydrocarbon liquids that are extracted from the natural gas stream. Principal NGLs include ethane, propane and butanes. Propane and butanes are also produced from crude oil refining processes. In Canada, approximately 86 percent of propane and 67 percent of butane supplies come from natural gas production. The term liquefied petroleum gas (LPG) refers to liquids produced mostly by refineries; that is, LPG refers to refined or liquefied propane and butanes only.

Production of NGLs from gas plants and refineries totaled 99 200 m³/d in 2004, an increase of two percent compared with 2003. Ethane production increased by about five percent to 42 900 m³/d. Butane and propane production remained relatively stable - both products decreased by only about one percent to 24 000 m³/d and 32 200 m³/d respectively. High propane prices, supported by exceptionally high crude oil and natural gas prices throughout most of the year, created the incentive for propane extraction. High demand for propane in Europe and Asia also helped keep prices high in North America. High domestic demand for blending also ensured butane extraction. Ethane extraction capacity was expanded in 2004 and production essentially matched ethane demand.

2004 NGL exports are estimated to be 28 700 m³/d, broken down into 23 800 m³/d of propane and

4 900 m³/d of butane. While propane exports increased by seven percent, butane exports decreased by 13 percent. Several factors accounted for the increase in propane exports including: strong petrochemical demand along the U.S. Gulf Coast throughout most of the year; a record corn crop in the U.S. Midwest and related crop drying demand; and, heavy summer rainfall in Ontario and consequent negative impact on storage capability forced some propane volumes out of Ontario into the U.S. market. It should be noted that pressure restrictions on Cochin Pipeline, which are expected to continue until the summer of 2005, did not affect propane throughput volumes for the year overall. Butane exports declined since the domestic market, related to the strong gasoline demand, consumed most of the produced butane volumes.

The U.S. Midwest continues to be Canada's largest market for propane and butanes, accounting for about 60 percent of the total export volume. In spite of high liquids prices, with increased propane exports more than offset by decreased butane volumes, the estimated value of 2004 NGL exports was \$ 2.6 billion, approximately 8 percent higher than 2003 export revenue.

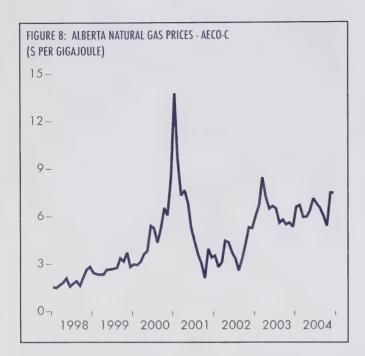
NATURAL GAS

An ongoing tight balance between the supply and demand of natural gas in North America resulted in sustained high natural gas prices in 2004 at levels higher than seen in recent years. The absence of significant growth in North American gas production combined with higher crude oil prices have contributed to natural gas prices remaining above \$5.00 per gigajoule across most Canadian and U.S. markets, similar to 2003 prices (Figure 8).

High natural gas prices encouraged very high levels of gas well drilling activity in Canada through 2004.

Natural Gas Demand

Total Canadian end-use natural gas demand continued to increase this year, albeit very slightly, to approximately



203 million m³/d, based on preliminary data. Modest increases in the industrial sector (including direct sales) were partially offset by lower residential and commercial sales. Warmer than normal weather conditions across much of Canada in the early spring accounted for the decline in residential usage, resulting in a decrease of about 2.3 percent in that sector. Sales to the commercial sector declined by about 4 percent. Alberta, Manitoba and New Brunswick showed the highest increases in demand.

Production

Canadian marketable natural gas production in 2004 totaled 478 million m³/d, an increase of less than 0.5 percent. The increase in drilling levels over the last two years has resulted in maintenance of this production. A large increase was not seen this year due to the lower initial productivity of new wells brought on-line.

In 2004, Alberta accounted for 79 percent of total Canadian natural gas production, British Columbia 14 percent, Saskatchewan four percent, Nova Scotia two percent, Northwest Territories and Yukon one half percent, and Ontario less than 0.5 percent.

Reserves

The NEB's estimate of remaining marketable gas reserves at the end of 2003 (the last year for which data is available), is 1 530 billion cubic metres (Table 6). In spite of strong exploration activity in 2003, reserves replacement only amounted to 46 percent of gas production. Over the past five years, cumulative additions of marketable gas reserves replaced 83 percent of total gas production (Table 7). On a regional basis, most areas recorded growth in their initial reserves, particularly Alberta. This was primarily due to a strong exploration effort.

However, significant decreases in the initial reserves of pools offshore Nova Scotia due to poor reservoir performance resulted in the relatively low production replacement for all of Canada.

Natural Gas Exports and Imports

Net natural gas exports in 2004 increased to 88.9 billion cubic metres, an increase of 3.1 percent over 2003 (Figure 9).

In 2004, gross exports from Canada increased by 2.9 percent to 101.4 billion cubic metres, while natural gas imports were 1.1 percent higher at 12.5 billion cubic metres.

A slight increase in gas production and a moderate decrease in weather-sensitive gas demand in Canada enabled greater exports in 2004. The higher exports were primarily used to meet increased gas consumption in the United Sates for the industrial and electric power generation sectors compared with 2003.

Net exports in 2004 accounted for 51 percent of total Canadian production, a slight increase from 2003 when 49.8 percent was exported. The distribution of exports in 2004 was 49 percent to the Midwest and

Mountain regions, 25 percent to the Northeast, and 26 percent to California and the Pacific Northwest (Figure 10). About 87 percent of these exports flowed under short-term orders; the remainder of exports flowed under long-term licenses.

Greater exports combined with slightly higher natural gas prices in 2004 resulted in an increase in export revenues to \$26.5 billion, a 4.3 percent increase over 2003. The net revenue from Canadian natural gas exports after accounting for a slight increase in imports was \$23.1 billion, or 6 percent greater than a year ago. This reflects a 1.8 percent increase in the average export price to \$6.87 per gigajoule in 2004, compared with \$6.75 per gigajoule in 2003.

ELECTRICITY

Restructuring and Market Developments

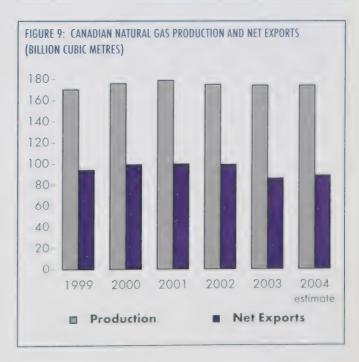
Over the past decade, many North American jurisdictions have restructured their electricity markets. In the traditional market structure, a vertically-integrated utility provides three functions: generation, transmission, distribution and retail services in a given franchise area. In this structure there is often only limited access to other markets. Consumers pay regulator-approved prices based primarily on the costs of providing service. The intention of restructuring is to separate, or "unbundle," the three functions and promote competition in the generation and retail services sectors. Wholesale access to transmission grids enables local distribution companies or other large buyers to use the grid to purchase electricity from the most competitive generation sources. Retail access gives consumers a choice among suppliers because marketers are able to use distribution systems to sell electricity to end-use consumers. Prices in the restructured environment are negotiated between buyers and sellers.

Canada

The extent of restructuring in Canada varies across the country, because the regulation of the electricity industry is generally the responsibility of the provinces

TABLE 6: ESTIMATES OF ESTABLISHED RESERVES OF MARKETABLE NATURAL GAS AT 31 DECEMBER 2003 (BILLION CUBIC METRES) Initial Remaining British Columbia (0) 124.4 Alberta(b) Saskatchewan 823.2 14.7 NWT, Nunavut and Yukon Nova Scotia Offshore Total in Trillion Cubic Feet 24 766.0 British Columbia Ministry of Energy & Mines and NEB common database Alberta Energy & Utilities Board and NEB common database Canadian Association of Petroleum Producers

TABLE 7: NATURAL GAS RESERVES, ADDITIONS AND PRODUCTION (BILLION CUBIC FEET)							
	1999	2000	2001	2002	2003	Total	
Additions	152	153	176	169	80	730	
Production	170	176	179	179	173	877	
Total Remaining Reserves	1 629	1 622	1 612	1 599	1 530		
Total in Trillion Cubic Feet	57.5	57.3	56.9	56.4	54		





and the territories. Alberta and Ontario have gone the furthest in restructuring their markets, as the opportunity exists for complete wholesale and retail access. British Columbia, Saskatchewan, Quebec and New Brunswick (starting in 2004) all have wholesale access and limited retail access, while Manitoba allows wholesale access.

With the passage of the *Electricity Act (2004)* in October, Nova Scotia put in place its restructuring plans. Starting in 2005, the Act mandates wholesale access to Nova Scotia Power's transmission system for six municipal distributors accounting for about five percent of Nova Scotia's electricity demand; Nova Scotia Power Inc., an

investor-owned utility (owned by Emera) serves the remainder. The legislation also includes a renewable portfolio standard requiring that, by 2010, five per cent of Nova Scotia's electricity supply come from renewable generating capacity constructed after 2001.

New Brunswick opened its market on 1 October 2004, providing competitive access to wholesale customers and large industrial customers. New Brunswick Power was re-organized under the NB Power Holding Corporation into four subsidiaries: distribution and customer service, nuclear generation, other generation, and transmission. In addition, the New Brunswick System Operator was created, which is an independent,

not-for-profit entity with the mandate to implement and administer the market rules and ensure the reliability of the New Brunswick grid.

Since Ontario opened its market in May 2002, the provincial government has implemented a number of modifications to the initial design and operation of the market to ensure adequate electricity supplies and stability in electricity prices. After public consultation, the government took a number of actions in 2004 culminating in the Electricity Restructuring Act in December. A main outcome of this legislation is the creation of the Ontario Power Authority (OPA). Commencing in 2005, the OPA will be responsible for: ensuring future power supplies for Ontario by taking an active role in issuing requests for proposals; promoting clean and renewable electricity sources; promoting conservation initiatives; and developing an integrated plan for generation and transmission. The Independent Electricity System Operator will retain most of the responsibilities of the former Independent Electricity Market Operator, including those pertaining to the operation of the Ontario wholesale market and the operation and reliability of the transmission system. The Ontario Energy Board (OEB) will have regulatory oversight of the OPA.

The legislation also includes establishing a three-tier wholesale market with prices consisting of: the province's heritage assets, which are mainly the existing power plants operated by Ontario Power Generation; independent power production based on long-term power purchase arrangements through the OPA; and other independent power production, including bilateral arrangements and spot sales. The OEB will be responsible for establishing the price of heritage assets and putting in place a new regime for retail prices in 2005.

As part of the electricity initiatives of the provincial government, Ontario plans to phase out its coal-fired power generation by the end of 2007. During 2004, a preliminary study was undertaken to examine a potential long-term supply solution called the *Clean Energy Transfer Initiative*. The proposal involves the

development of three hydro electric power sites in Northern Manitoba in the 2010-2017 time period and new transmission capacity to accommodate a transfer of 1 500 megawatts into Ontario.

United States

Important trade in electricity occurs between Canadian and U.S. jurisdictions. Although Canada is a net exporter to the U.S., mainly due to the availability of hydroelectric resources, both countries realize commercial benefits and improved electricity reliability. The major U.S. initiative to enable consumers to benefit from interregional trade has been through mandated wholesale access to transmission systems. Since 1999, the U.S. Federal Energy Regulatory Commission (FERC) has promoted the formation of Regional Transmission Organization (RTOs) as the mechanism to achieve wholesale access and enable U.S. consumers to obtain electricity reliably at the lowest price.

The process to achieve FERC-approved RTO status has proven to be complicated and some aspects, or requirements, have encountered resistance in some regions. In addition, the prospective members of specific RTOs have varied and so have time lines to achieve RTO status.

While Canadian transmission systems are not required to join an RTO, there are potential benefits that come about from having access to a broader market area, and a number of Canadian entities, have either considered or plan to join an RTO. Other Canadian entities believe their systems constitute an RTO; thus, they only need to work out those operational and business practices that would allow smooth power transfers between RTOs, or the seams issues.

During 2004, some progress was made on RTO formation in jurisdictions adjacent to Canada. RTOs expected to achieve approval in 2005 are the New England Independent System Operator, or ISO-New England (adjacent to New Brunswick and Quebec) and the Midwest Independent System Operator or MISO

(adjacent to Ontario, Manitoba, Saskatchewan). The timing for Grid West, formerly RTO West (adjacent to Alberta and B.C.) is less certain. Manitoba has a coordination agreement with MISO and B.C. has expressed an interest in joining Grid West through the B.C. Transmission Corporation.

Electric Reliability

Ongoing concerns about how electric reliability would be assured in a restructured environment, and specific issues raised following the August 2003 blackout in Ontario and parts of the U.S., have emphasized the call for mandatory reliability standards. Since the North American Electricity Reliability Council (NERC) was formed in 1968, reliability standards for the interconnected North American transmission grid have been voluntary. Proposed energy legislation in the U.S. contains mandatory reliability standards, i.e., standards that would be established and enforced by an Electric Reliability Organization (ERO). The ERO would have the authority to levy financial penalties for breaching any mandatory standards. In the U.S., the ERO would be subject to regulatory oversight by the FERC. In Canada, the ERO would be subject to the oversight by the appropriate regulatory authorities representing the provincial and federal interests in electric reliability. The proposed U.S. legislation (H.R. 6), which is a comprehensive package of energy proposals, has not been passed by Congress; thus the timing for the implementation of mandatory standards is uncertain.

TABLE 8: ELECTRICI (TERAWATT HOURS)		a)			
	2000	2001	2002	2003	2004 ^(b)
Hydroelectric	353.3	328.3	345.9	332.8	329.5
Nuclear	68.7	72.4	71.3	70.7	84.2
Thermal	161.4	165.1	161.6	159.5	145.7
Total	583.4	565.8	578.7	562.9	559.3

In anticipation that mandatory standards will be implemented, NERC, the industry, government energy departments and regulatory agencies in Canada and the U.S., led by the Bilateral ERO Oversight Group, have begun the administrative actions to address the implementation and operation of the ERO. For example, in December 2004, the NEB participated in a workshop with representatives from the above entities, including provincial governments and their regulators, which examined how Canadian interests would be represented in the ERO.

Electricity Production

Although water conditions improved in many parts of Canada, hydro generation remained unchanged at about 59 percent of total generation this year due to hydro provinces conserving water in order to refill depleted reservoirs (Table 8). Water conservation contributed to total electricity production declining from the previous year. Higher thermal fuel (coal, natural gas, oil) prices dampened thermal production and also contributed to a slight total electricity production decrease from 2003. Nuclear generation experienced a production gain of 20 percent from 2003.

In 2004, several provinces issued requests for proposals (RFPs) for new sources of electricity production. Provinces issued RFPs designed at increasing generation capacity, diversification and flexibility of supply. The RFPs brought in proposals for a variety of generation projects including wind, renewable energy, thermal, hydroelectric and cogeneration.

Electricity Demand

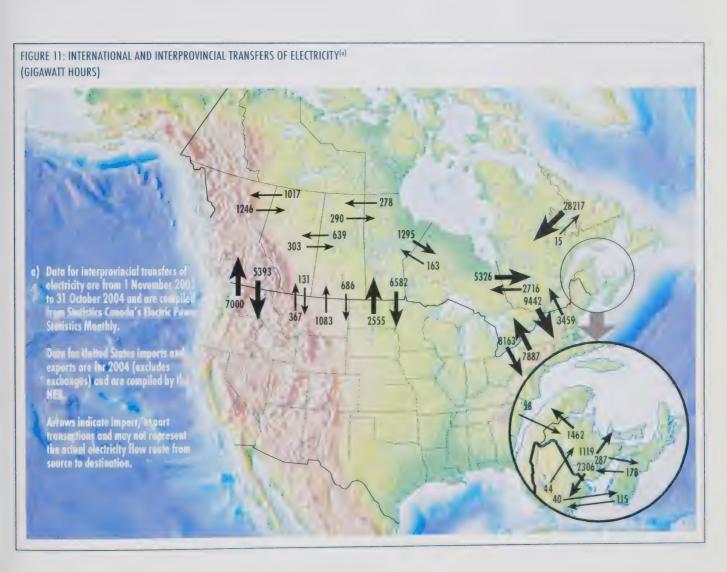
Electricity demand declined by approximately one percent in Canada from 556.4 terawatt hours in 2003 to 548.8 terawatt hours in 2004. Mild weather through the summer across the country and in the latter part of 2004 helped to suppress cooling and heating demand and helped to offset the cold winter weather in the West towards year-end. As a result, Canadians imported less electricity and were able to increase exports by nearly five percent from the previous year.

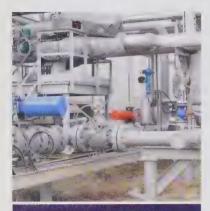
Over the past five years, domestic demand has remained fairly flat increasing 0.1 percent per annum, on average, while production has decreased over one percent per year. Reasons for the minimal change in demand include improvements in technology and the introduction of government programs to encourage smart consumption.

Exports and Imports

Canada ended 2003 and began 2004 as a net importer of electricity for the first time. A contributing factor included low water levels due to drought conditions. Water

conservation measures were also implemented in order to replenish reservoirs. Therefore, hydro producing provinces were forced to rely more heavily on electricity imports. As 2004 progressed, water levels improved, and electricity exports to the U.S. increased. Canada's total exports increased approximately five percent from the previous year from 26.1 to 27.6 terawatt hours (Figure 11). An increase in total exports has not occurred for three years. Imports declined 14 percent from 2003, from 19.6 to 16.9 terawatt hours. Overall, net exports were 62 percent, or 10.6 terawatt hours, higher in 2004 when compared with the previous year.









primary aspect of the NEB's purpose is to ensure that the regulated industry operates in a manner which ensures the safety of employees, contractors and the public at large. This is reflected in the first of the NEB's five corporate goals.

The safety of pipelines and other regulated facilities is dependent upon competent design, construction, operation and maintenance practices. Regulated companies have the primary responsibility for safety as they are the designers, builders and operators of these pipelines and facilities. This is recognized in the ongoing development of goal-oriented regulatory approaches which place the onus on companies to ensure their facilities are safe, secure and operated in an environmentally responsible manner. The NEB plays a significant role in safety by ensuring that its regulatory framework that encourages companies to maintain or improve their safety performance is in place and is linked to public expectations.

The Board ensures that safety risks associated with construction and operation of regulated facilities are identified and managed by pipeline companies. The Board does this by:

- developing regulations and guidelines for the safety, security and protection of people and property;
- assessing proposed facility applications from an engineering and safety perspective;
- ensuring that plans are in place for the implementation of appropriate mitigative measures, where necessary;
- monitoring construction and operations through inspections, audits and construction progress reports to verify that regulatory requirements have been and will continue to be met;
- assessing safety practices and procedures under the NEB mandate as well as through the *Canada Labour Code* on behalf of HRSDC;
- investigating incidents with the intent of preventing future similar occurrences;
- meeting with regulated companies to review and assess the adequacy of their integrity management programs;
- issuing safety advisories; and
- where necessary, conducting inquiries or formal investigations into safety issues.

MONITORING COMPLIANCE

Inspections

The NEB monitors the pipelines and facilities it regulates from construction through to abandonment. Inspection, safety and conservation officers verify compliance with:

- legal requirements set out within the COGO Act, the NEB Act, and the *Canada Labour Code* as well as within their subordinate legislation;
- commitments set out in the application and made during proceedings; and
- conditions of the project approval.

NEB inspection officers conduct inspections during the construction and operation of facilities to assess and assure compliance. Inspections are also conducted along existing pipeline systems to assess whether third party excavation work is being completed in compliance with the NEB *Pipeline Crossing Regulations*. In 2004, NEB inspection officers carried out 17 safety and engineering inspections on NEB-regulated projects under construction, 100 safety inspections on operating NEB-regulated facilities, and 6 crossing inspections.

On frontier lands, conservation and safety officers conduct inspections related to geophysical and drilling programs as well as production operations to verify compliance with the approved program and relevant regulations. Occupational safety and health matters are also addressed during these inspections. In 2004, conservation and safety officers conducted 84 inspections of frontier activities and facilities.

The NEB has not issued regulations regarding the construction and operation of international power lines. At present, inspections are conducted to verify compliance with the conditions attached to the Board Order or Certificate allowing the international power line to be built.

The NEB supports a cooperative approach to compliance, working with companies to ensure that safety commitments and requirements are met. The NEB promotes safety training for company and contractor construction personnel to ensure that crews understand project safety requirements and the NEB's responsibility to monitor compliance. Non-compliance situations are handled in the first instance by obtaining an immediate and voluntary correction by the company. If a situation cannot be corrected immediately or if additional information is required from a company, officers may ask for a written assurance of voluntary compliance.

Inspection officers appointed under the NEB Act can issue a stop work order where there are reasonable grounds to believe that a hazard to the safety of the public or employees of a company or a detriment to property or the environment is being or will be caused by the construction, operation, maintenance or abandonment of a pipeline, or any part of a pipeline or an excavation activity or the construction of a facility. No such orders were issued by NEB inspection officers in 2004.

The NEB tracks the extent to which companies comply with the conditions on Board Orders or Certificates and the effectiveness of those conditions in meeting safety requirements. The NEB also uses this information to improve the clarity and effectiveness of conditions that it places on its approvals. The Environment and Safety Information Management System (ESIMS) is a tool used by Board staff to track and monitor conditions placed on approvals and mitigative measures for effectiveness and to report on the achievement of desired end results. Information from inspections and audits is entered into ESIMS, providing NEB staff access to relevant information and the ability to analyse trends and performance.

Management System Audits

The Board conducts management system audits on NEB-regulated facilities to evaluate compliance with the *Onshore Pipeline Regulations* (OPR-99) and

Processing Plant Regulations (PPR). Through interviews with company staff, document review and on-site verification, Board staff evaluate programs and processes that operating facilities have in place to meet the intent of goals within the OPR-99 and PPR.

During 2004, the Board continued the implementation and development of its safety audit program. The Board's audit of a company's safety program verifies that the company has in place the following components: safety policy, regulatory planning, procedures, and training, as well as implementation of these program elements. The company's approach to evaluating its safety performance and taking necessary corrective action is also examined, along with the company's approach to performing a management review of its overall safety program.

In 2004, four management system audits were conducted by the NEB, one under the PPR and three under the OPR-99. One of the audits also evaluated compliance with applicable regulations under the COGO Act and the Canada Labour Code, Part II. Final audit reports are accessible to the public upon request to the Board. In general, the companies that were audited took proactive steps in developing the elements of a safety program. The audits did identify some deficiencies in the implementation of certain safety program elements in some of the audited companies. Plans to correct those deficiencies were subsequently submitted to the Board. The NEB also followed up on audits conducted in previous years by reviewing the corrective actions taken by companies. The purpose of the follow-up was to verify that action taken was adequate and that compliance to applicable regulatory requirements had been achieved, thereby completing the audit cycle.

Emergency Management

The NEB's primary role during an emergency situation is to monitor the company's response, ensuring that all reasonable actions are undertaken to protect employees, public safety and the environment. As part of its monitoring role, the NEB verifies that all regulated

companies have adequate emergency response plans that mitigate any negative effects resulting from oil spills or natural gas leaks. Emergency response plans and manuals are examined during audit to ensure that appropriate procedures are in place. The NEB also encourages and participates in tabletop and full-scale emergency response exercises sponsored by pipeline companies.

INCIDENT INVESTIGATION

Certain events must be reported to the NEB as they occur. These events are collectively referred to as *incidents*. The reporting requirements for incidents for companies regulated under the NEB Act are found within the OPR-99 and PPR, and in conditions attached to Board Orders or Certificates for certain facilities.

Incidents which must be reported include:

- the death or serious injury of a person;
- a significant adverse effect on the environment;
- an unintended fire or explosion;
- the unintended or uncontained release of low vapour pressure hydrocarbons in excess of 1 500 litres;
- the unintended or uncontrolled release of gas or high vapour pressure hydrocarbons;
- the operation of a pipeline beyond its design limits as determined under CSA Z662, CSA Z276 or any operating limits imposed by the Board; and
- within a processing plant, any occurrence that results or could result in a significant adverse effect on property, the environment or the safety of persons.

In 2004, 52 incidents were reported to the NEB, compared with 44 in 2003, and 43 in 2002 (Figure 12). The number of reported incidents remains relatively

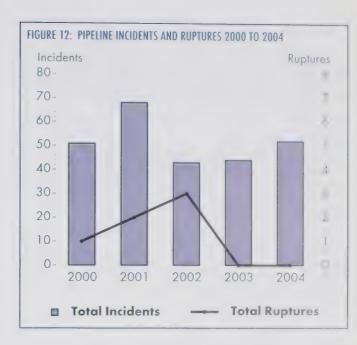
constant although there are indications that reporting requirements are not being met by all regulated companies. The NEB is in the process of revising reporting requirements in an effort to achieve greater compliance. The NEB has a target of zero ruptures on the pipelines it regulates. In 2004, as in 2003, there were no ruptures on NEB-regulated facilities. Details of ruptures that have occurred on NEB-regulated pipelines, dating back to 1992, are available on the NEB's Internet site at http://www.neb-one.gc.ca/safety/PipelineRuptureData/index_e.htm.

In 2004, total hazardous occurrences in frontier areas, as defined by the *Oil and Gas Occupational Safety and Health Regulations* under the *Canada Labour Code*, *Part II*, were 34, down by 11 from 2003. Disabling injuries remained at three when compared with 2003, translating into an increase in frequency of disabling injuries from 2.0 per million hours worked in 2003 to 2.3 per million hours worked in 2004.

PIPELINE SECURITY MANAGEMENT

Security management in the energy sector remains a high priority and focus. In the Government of Canada Position Paper on a National Strategy of Critical Infrastructure Protection, Public Safety and Emergency Preparedness Canada lists the Energy and Utilities Sector as one of the 10 sectors that form the basis of the National Critical Infrastructure Assurance Program. The Board, as a regulator of inter-provincial and international pipeline systems and electrical power-lines that cross borders, has historically included security management under the aegis of promoting safety, environmental protection and economic efficiency in the Canadian public interest.

The Public Safety Act, 2002 (2004, c. 15) received Royal Assent 6 May 2004. Part 14, sections 82 to 93, refer to the NEB Act; however, until these amendments receive approval by the Governor in Council, they are not yet in force. This act will amend the NEB Act to explicitly include security within the Board's mandate and will



provide the Board with the basis for regulating security of energy infrastructure under its jurisdiction.

In this regard, the Board decided to complete Pipeline Security Management Assessments (PSMAs) on all 10 Group 1 companies and two Group 2 companies between June 2004 and March 2005. The PSMA is an information gathering initiative to:

- gain an understanding on how the industry is managing pipeline security;
- identify industry practices and best practices;
 and
- identify security related issues that may be common to regulated companies.

Seven of the PSMAs were completed in 2004. The information gathered from these PSMAs will form the basis of the Board's approach to regulating pipeline security. All information gathered from these PSMAs is sensitive and will be protected under sections 16 and 17 of the Access to Information Act.

Focusing on management systems allows regulated companies to retain flexibility in how they manage security while operating in a way that assures public safety and security, and environmental prudence.

The Board continues to collaborate and liase with provincial regulators and agencies, federal agencies, American counterparts and pipeline associations in managing security issues.

PERCEPTION OF SAFETY

The NEB continued work on its Safety Performance Indicators (SPI) initiative during 2004. The primary objective of the SPI initiative is to gather and publish data on the safety and environmental performance of companies regulated by the NEB. The SPI results, produced on a calendar year basis, will permit bench-marking and trend analysis over time, and will allow the NEB to compare Canadian companies with international companies. By identifying areas that show changes in performance, programs can be adjusted to provide the most efficient allocation of safety resources. Information on the initiative as well as reports can be found at http://www.neb-one.gc.ca/safety/SafetyPerformanceIndicaticators/index_e.htm.

The NEB has issued a number of Safety Advisories. These are often developed as a result of the NEB's investigation into pipeline incidents and contain important information related to safety matters. The Transportation Safety Board (TSB) has also issued Safety Advisories pertaining to pipelines. Both NEB and applicable TSB Advisories are now being placed on the NEB's Internet site in the Safety & Environment section for public viewing. Two NEB Safety Advisories were published in 2004, with the latest Advisory published in December 2004 regarding the hazards of using threaded connections under adverse design

conditions. The Safety Advisories can be found at http://www.neb-one.gc.ca/safety/SafetyAdvisories/index_e.htm.

As part of its monitoring program, the NEB also tracks landowner complaints.⁴ In 2004, the Board received 20 landowner complaints. Three of these landowner complaints related to safety concerns regarding NEB-regulated facilities and activities, and company compliance with commitments, filings, conditions and regulatory requirements. One of the three complaints was resolved during the year. The NEB conducted inspections and met with the parties in association with these three complaints. In addition, one federally-regulated company participated in a local industry/community group to collaboratively assess and resolve issues.

During the year, the NEB contracted Environics Research Group, an independent public opinion research company, to conduct a survey of more than 1,100 landowners across Canada. A key concern that the Board wanted answered through the survey was how safe landowners felt living or working near an NEB-regulated pipeline. The Board also wanted to ascertain if landowners' experiences and views may have changed since the previous survey conducted in 2001, where comparable data were available.

The survey confirmed that a clear majority of landowners agree they feel safe and that the pipeline is not a threat to public safety. A trend analysis also indicated that landowners feel safer in 2004 than they did in the 2001 survey conducted by the Board (Figures 13 and 14). Environics cautioned that Board that while the results of the 2004 and 2001 surveys are generally comparable, the composition of the sample and the way in which the questions were asked were not strictly the same.

^{4.} The Board has tracked landowner complaints since April 1999.

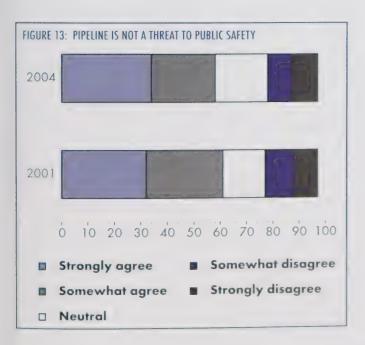
RESEARCH AND DEVELOPMENT

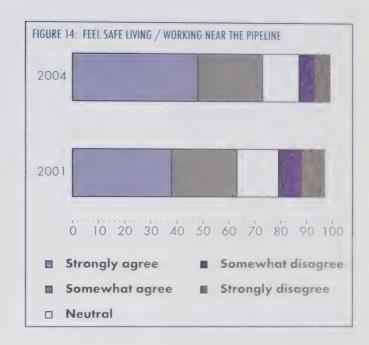
The Board continued to be active in committee work in support of the CSA Z662 Standard on Oil and Gas Pipelines and the CSA Z276 Standard on Liquefied Natural Gas. In addition, NEB staff are active in the organization of, and have made presentations, at major industry events including:

- the International Pipeline Conference (last held in Calgary in October 2004); and
- the Pipeline Technology Conference (last held in May 2004).

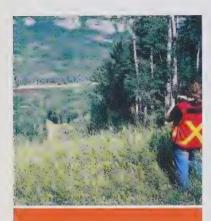
NEB staff also actively participate in the committee work of the Pipeline Materials Program at Objective Level of NRCan's Panel on Energy Research and Development and the Materials Technical Advisory Committee of CANMET.

At the International Pipeline Conference in Calgary a paper was presented by Dr. Franci Jeglic of the NEB entitled *Analysis of Ruptures and Trends on Major Canadian Pipeline Systems* IPC04-0272.



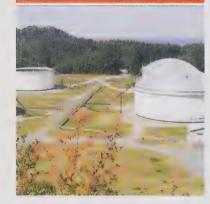


PROTECTING THE ENVIRONMENT AND RESPECTING THE RIGHTS OF THOSE AFFECTED



Goal 2:

NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected.



s part of its mandate to make its decisions in the Canadian public interest, the NEB requires regulated companies to identify and manage environmental, socio-economic and lands risks associated with their activities and with the construction, operation, maintenance and decommissioning of their facilities. The NEB achieves this goal by:

- considering all project phases (the *project lifecycle*) in assessment and compliance;
- conducting environmental, socio-economic and lands assessments of proposed projects;
- ensuring regulated companies notify landowners, tenants and affected parties regarding proposed facilities;
- ensuring regulated companies have consulted and acquired land rights through easements, permits or right of entry orders prior to construction;
- ensuring regulated companies consult with affected people and other stakeholders prior to, during and after construction;
- providing opportunities for affected people and other stakeholders to intervene or provide letters of comment regarding a proposed facility;
- ensuring that appropriate mitigation measures, approval conditions, and environmental protection plans are in place before granting project approval;
- inspecting and monitoring construction and operation of approved projects to verify compliance with, and assess the effectiveness of, mitigation measures, conditions, and environmental protection plans;
- auditing regulated companies' environmental protection, emergency response, public awareness and continuing education programs;
- investigating spills and releases to help prevent similar incidents;
- providing regulatory oversight with respect to environmental, socio-economic and lands issues during the abandonment phase; and
- addressing landowner complaints.

When making its decisions, the Board takes into consideration relevant environmental, socio-economic and land matters including, but not limited to:

- potential effects on air, land and water;
- potential effects on wildlife and vegetation, including species at risk, and the integrity of natural habitats;
- regional land use plans and zoning;

- alternate routes for pipelines and power lines;
- traditional land use;
- heritage and archaeological resources;
- human health and safety;
- local infrastructure and services:
- local labour force and economy;
- land requirements; and
- land acquisition.

ENVIRONMENTAL AND SOCIO-ECONOMIC ASSESSMENT

Regulatory Context

The regulatory framework for environmental and socio-economic assessment is complex and dynamic. While most NEB-regulated activities fall under the NEB Act, upstream oil and gas activities in non-accord frontier areas are governed by the COGO Act. In addition to meeting environmental and regulatory requirements under these Acts, most projects considered by the NEB must undergo assessments under the federal CEA Act or, in the Northwest Territories south of the Inuvialuit Settlement Region, under Part 5 of the Mackenzie Valley Resource Management Act.

Most environmental and socio-economic assessments at the NEB confirm or incrementally improve environmental and socio-economic design aspects of small energy infrastructure projects, for example, minor system expansions or technical upgrades to existing facilities, which are otherwise clearly in the public interest. Certain simple, routine energy projects, such as the addition of a valve or a meter station to an existing pipeline under specific conditions, identified in various provisions of the CEA Act Exclusion List Regulations and the NEB's Streamlining Order, are dealt with by a risk management approach. In effect, these regulatory filters formally implement a risk-management approach, helping to focus assessment attention and resources on larger or more complex projects, such as proposals for new pipeline systems like the Mackenzie Gas Project, with potential for significant environmental and socio-economic effects. In dealing with projects not excluded or streamlined, the Board uses a structured risk-management approach that considers the likelihood and consequence of potential effects. This helps to maintain the regulatory focus on important environmental design and socio-economic issues.

In 2004, the Board revised its comprehensive study process to integrate the NEB hearing and the comprehensive study processes. The NEB will now carry out a comprehensive study within its established regulatory hearing process. The Board also developed an internal guide to provide staff with information necessary to effectively and efficiently coordinate an approach to the comprehensive study process to better conform to the scheme of the CEA Act and the quasi-judicial nature of the NEB's responsibilities.

The NEB must track emerging technical and regulatory issues, so that its regulatory efforts are proactive, strategic and efficient. In 2004, an intranet-based issue tracker framework was piloted to engage specialists in monitoring, analysing, sharing and retaining knowledge on selected environmental, socio-economic and lands topics relevant to NEB strategic planning. If effective and efficient, the framework may be broadened to include safety, engineering and economics issues.

Federal Authority Initiative

In 2004, the Board continued work on the Federal Authority (FA) Initiative which was launched in 2003 to facilitate improved coordination and working relationships with other federal departments involved in NEB processes. Through this initiative, the Board also received feedback from federal departments on their experiences in working with the NEB. The Board used the results to identify potential improvements and implement changes to its environmental assessment processes and CEA Act responsibilities.

As a result, the Board modified its practices to enhance environmental assessment coordination e.g., Federal Environmental Assessment Committee (FEAC) meetings. NEB staff may participate in or organize FEAC meetings to discuss process and timing issues with FAs prior to, and during an NEB hearing.

In addition, the Board is defining a new federal government participation role for federal authorities in the NEB hearing process. The new role will support Federal Authorities CEA Act responsibilities, while protecting the integrity of the NEB process and ensuring that CEA Act decisions benefit from effective participation of FAs.

In northern regions, the Board has continued to develop partnerships with other regulatory agencies and Aboriginal bodies to better coordinate environmental assessment processes and streamline regulatory reviews.

Filing Manual

In April 2004, the Board released the *NEB Filing Manual* to provide guidance to companies preparing applications to the Board. The Board's goal was to clearly state the Board's expectations so that companies understand what type of information would be required in the majority of cases and provide that information in their applications.

The Board wanted to ensure that stakeholder involvement opportunities were provided throughout the process. Industry, aboriginal groups, government and non-government organizations were involved in developing of the *NEB Filing Manual*, and the Board provided training in 2004 to help users become familiar with the document and the procedures it contains.

The filing requirements set out in the NEB Filing Manual for environmental, socio-economic and lands assessment are not substantially different from the information that was specified in the Guidelines for Filing Requirements. However, the NEB Filing Manual

has been updated and provides clearer requirements and guidance to applicants. For example, the manual includes specific guidance on scoping of environmental and socio-economic assessments to assist applicants to determine the scope of information to be provided.

The NEB Filing Manual outlines the process for environmental and socio-economic assessment which applicants are expected to carry out. This process includes the evaluation of cumulative effects as part of the overall assessment. When looking at cumulative effects⁵, the Board can consider whether a proposed project is incrementally responsible for adversely affecting a biophysical or socio-economic element beyond an acceptable point. The Board can consider these effects in the context of existing biological-based thresholds, resource management objectives, land use plans and recovery plans.

The NEB Filing Manual now includes explicit requirements and guidance on human health. These changes were made to ensure that future socio-economic assessments clearly describe how human health effects are assessed or why they have not been assessed. Internally, this has resulted in the incorporation of human health into the Environmental Screening Report Template and the Non-Hearing Facilities Application Assessment Template / Case Management System, and the development of a Human Health Effects Assessment Framework. All of these initiatives provide greater clarity and consistency as to how the NEB assesses human health effects. A risk-management approach is used to maintain the regulatory focus on important human health effects.

Late in 2004, two new filing manual projects were initiated by the Board to communicate its information requirements and expectations regarding electricity applications under the NEB Act and environmental matters for exploration and production applications under the COGO Act. The projects involve adapting the recently released *NEB Filing Manual* to address

^{5.} Cumulative effects are changes to the environment caused by a project in combination with other past, present and future human actions.

the specific requirements of the electricity and COGO Act applications. Consultations on these draft manuals are expected to be undertaken during the first half of 2005.

Substitution

Under the CEA Act, the Minister of the Environment can substitute a hearing by the NEB for a CEA Act review panel or joint review panel process. Substitution was endorsed by the External Advisory Committee on Smart Regulation as a viable means to provide clearer communication and increased certainty of the entire regulatory review process, including the environmental assessment component. In response to the External Advisory Committee's recommendation, the NEB prepared a discussion paper in July 2004, on substitution under the CEA Act aimed at improving clarity, collaboration and timeliness to better achieve federal regulatory and environmental assessment requirements. Full NEB substitution would eliminate approximately four months from review times.

In December 2004, the NEB asked the Minister of the Environment to support a substitution agreement between the NEB and the CEA Agency. The Minister declined, anticipating that more efficiency and procedural certainty would be brought to the federal environmental assessment process through "consolidation of federal environmental assessment", as outlined in the October 2004 Speech from the Throne. The NEB remains fully committed to continuous improvement of its regulatory processes, and looks forward to working with the CEA Agency as it leads reform and consolidation of the federal environmental assessment process.

MONITORING COMPLIANCE

In addition to monitoring regulated facilities from a safety perspective, the NEB conducts inspections and audits in the context of environmental protection from the construction phase through to abandonment.

Inspections

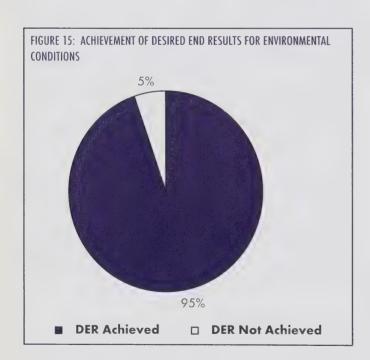
As with safety, the NEB supports a cooperative approach to compliance monitoring, working with regulated companies to ensure environmental protection. NEB inspection officers monitor construction to verify compliance with the conditions of the project approval and the commitments set out in the company's environmental protection plan and its application. NEB inspection officers also conduct post-construction monitoring of operating facilities to evaluate the success of reclamation and other mitigation measures and to verify that the environment, the public and property are protected. In 2004, NEB inspection officers carried out 22 environmental inspections on NEB-regulated projects under construction and 18 environmental post-construction inspections. The NEB also conducts environmental inspections related to geophysical and drilling programs and production operations in frontier lands to verify compliance with the approved program and relevant regulations.

The NEB tracks environmental conditions for compliance and effectiveness. In 2004, 92 environmental conditions were confirmed to be effective in achieving their desired outcomes while seven were not. The conditions which did not produce an effective outcome were due to incomplete company filings or lack of condition clarity. Figure 15 shows the relative proportion of environmental conditions which were found to be effective. The NEB is committed to improving the clarity of its environmental conditions to eliminate the possibility of misinterpretation by companies of the Board's desired end result. A condition guide is being developed for staff use which incorporates feedback related to clarity of past conditions.

Management System Audits

In 2004, the NEB conducted four management system audits of regulated companies. Each audit included an evaluation of company environmental protection programs. One audit was carried out under the *National Energy Board Plant Processing Regulations* and the other

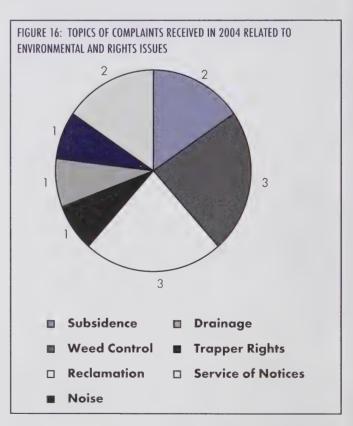
three were carried out under the Onshore Pipeline Regulations, 1999. One of the audits also evaluated compliance with applicable regulations under the COGO Act. Generally, the audited companies were found to have a strong commitment towards environmental protection with an environmental policy in place and supporting environmental programs. Some deficiencies were noted with regard to the development of formal processes for the identification and evaluation of environmental aspects, the delivery of appropriate environmental training programs, and the implementation of company internal audit programs. NEB auditors and inspection officers completed the audit cycle, following up on corrective actions completed in response to previous audits and evaluating whether the corrective actions taken were adequate.



Landowner Complaints

As with safety, the Board also tracks landowner complaints related to environmental and rights⁶ issues. Of the 20 landowner complaints received in 2004, 10 related to concerns regarding the protection of the environment (Figure 16). Six of these 10 complaints were resolved in 2004. The NEB conducted inspections and met with the parties in association with three of these landowner complaints.

The Board also received three landowner complaints related to concerns regarding the rights of those affected, which were resolved in 2004. These complaints related to trapping rights and appropriate service of notices prior to and during construction of a facility.



^{6.} The rights protected relate to activities undertaken by a company for the life of the NEB-regulated facility, which means from the pre-application to abandonment of that facility. The consideration of rights may include, but is not limited to service of notices, consultation, an opportunity to be heard by the Board, access to information, communication, reclamation, safety and protection of the environment.

Landowner complaints⁷ are initially assessed based on the following.

- Does the NEB regulate the facility?8; and if so;
- Are the complaint issues raised by the affected party (e.g. landowner) within the Board's authority⁹?

The landowner complaint process provides the parties with sufficient flexibility to request Board involvement or assistance at any point and a process is designed to meet the needs of the parties.

Ideally, the parties have a greater level of satisfaction if they resolve their issues without Board involvement; however, the parties are provided with the following options to assist in the resolution of the complaint:

- Telephone or written exchange involving Board staff;
- Inspections and meetings with Board staff and the parties;
- Appropriate dispute resolution; and
- Board decision and review.

Spills and Releases

Spills and releases of hydrocarbons or other substances associated with NEB-regulated activities and facilities are of concern to the Board. Depending on the nature of the product that is released, spills and releases can result in environmental damage. Twenty-seven gaseous and

liquid hydrocarbon spills were reported in 2004. This is up slightly from the 26 gaseous and liquid hydrocarbon spills that were reported in 2003 and remains down from 33 spills and releases reported in 2002, and 46 in 2001. There were five reportable spills of liquid hydrocarbons greater than 1 500 litres in 2004. All but one of the spills was contained within pump station sites, or terminals. There were no incidents that resulted in liquid product migrating off company property or the right of way. In frontier areas, reportable spills were down about 20 percent from 42 spills and releases in 2003 to 33 in 2004, partly due to a small decrease in the level of exploration and production activity in 2004. The NEB's investigation process for hydrocarbon spills includes follow-up to verify that site remediation is carried out as required by the NEB and prescribed in the company's remediation plan.

RESEARCH AND DEVELOPMENT

The Environmental Studies Research Funds (ESRF) provides funding for environmental and social projects pertaining to decision-making in regard to petroleum exploration, development and production activities on frontier lands. The NEB chairs and provides technical and administrative resources for the ESRF Management Board, which consists of industry, government and members of the public. In 2004, the Management Board approved 20 new studies, continued to provide funding to others that were previously approved, and participated in updating the CSA Standard for Offshore Structures. ESRF reports can be ordered through the ESRF Internet site at www.esrfunds.org.

By definition, a landowner is any person, group or company who has an interest in or who is directly or indirectly affected by the activities of a federally-regulated facility during the construction, operation and abandonment of that facility.

^{8.} If the NEB does not regulate the facility, Board staff will refer the Landowner to the appropriate authority.

^{9.} If the concerns are not within the Board's authority (e.g. compensation issues or trespass), Board staff will refer the Landowner to the appropriate provincial or federal authority. Note that although issues raised may not be within the NEB's authority to resolve, parties will be provided with a venue to discuss these issues when they choose to participate in an ADR process.



Goal 3:

Canadians derive the benefits of economic efficiency.



he Board promotes the benefits of economic efficiency through:

- the regulatory decisions it renders;
- the energy market information it provides to Canadians; and
- the efficiency and effectiveness of its regulatory processes.

REGULATORY DECISIONS

The Board strives to promote an efficient energy infrastructure that meets the needs of users and allows owners to earn a fair return on their investment through its regulatory decisions. A summary of Board Decisions rendered in 2004 is provided in the *Applications Highlights* section.

ENERGY MARKET INFORMATION

Energy market monitoring and analysis provides two key outcomes to assist in promoting economic efficiency. First, it allows the Board to gain a thorough understanding of energy supply, markets and infrastructure in order to render decisions as an expert regulatory tribunal. Second, it allows the Board to provide information to Canadians about the energy markets in order to help both users and suppliers make informed decisions.

Functioning of Canadian Energy and Transportation Markets

To determine whether Canadians are deriving the benefits of economic efficiency, the Board looks for evidence that the energy and transportation markets are working well. Consequently, the Board monitors energy markets to ensure that Canadian energy users can access Canadian energy on terms and conditions comparable to those of export purchasers. Similarly, the Board monitors transportation markets with regard to the utilization and adequacy of pipeline capacity.

With respect to the natural gas market, it would be expected that the commodity price, for example at the Alberta border, would be essentially the same for all gas buyers, whether destined for domestic or export markets. Figure 17 shows natural gas prices at export points in eastern Canada netted back to the Alberta border, compared with prices at AECO-C, the main pricing point for natural gas in Alberta, with transportation cost to the Alberta border added on.

The figure shows that prices at AECO-C are usually equal to or lower than the equivalent prices at export points. This demonstrates that Canadians are paying no more for natural gas than export customers for gas purchased in Alberta.

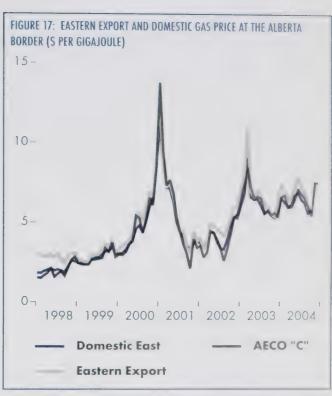
Similarly, the Board tracks prices in the British Columbia gas market and the Maritimes gas market. Both of these markets pose challenges, mainly related to the relatively small number of buyers and sellers. The Board continues to monitor these markets. For further information, readers may refer to the Board's March 2004 report titled Natural Gas Prices in the Maritimes, or the April 2004 report titled The British Columbia Natural Market: An Overview and Assessment, which discuss the current state of each of these markets. These reports can be found on our Internet site at http://www.nebone.gc.ca/energy/EnergyReports.

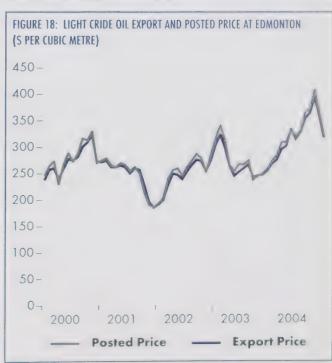
With respect to crude oil, a similar relationship exists between domestic and export prices (Figure 18). The chart demonstrates that Canadians have access to Canadian crude oil on price terms at least as favourable as export customers.

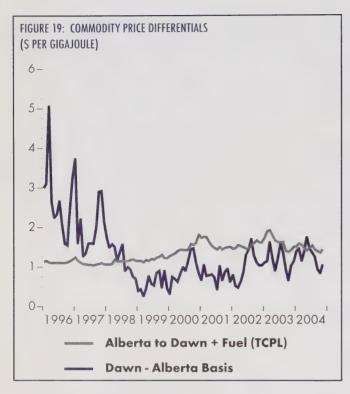
The Board also monitors electricity markets, although this presents some challenges due to the regional nature and operational structure of electric power markets. However, residential electricity prices are generally considerably lower in Canada than in nearby cities in the U.S.

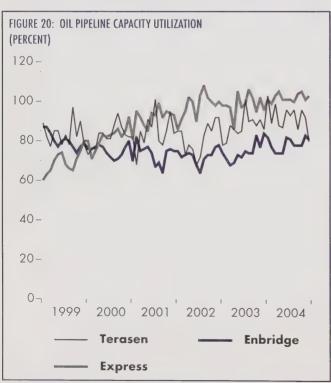
In order for energy markets to work well, there has to be adequate transportation capacity to move crude oil, refined products, natural gas and natural gas liquids from producing areas to the end-users who require them. When there is adequate capacity between two pricing points, the prices will be *connected* and the price differential will be less than or equal to the cost of transportation between the two points.

For example, Figure 19 shows the basis, or the difference in commodity prices between the Alberta border and the Dawn delivery point in southwestern Ontario, compared with the firm service toll (including fuel costs) between these two points on the TransCanada PipeLines system, the largest natural gas pipeline system in Canada.









The fact that the price difference is typically lower than the firm service transportation toll demonstrates that there is adequate capacity in place. The Board tracks similar charts for other pipeline corridors within Canada, and is satisfied that there are generally sufficient levels of natural gas pipeline capacity.

With respect to oil pipelines, lack of adequate pipeline capacity is experienced when shippers request transportation of more oil or oil products than the pipeline can carry. This normally results in a situation known as apportionment, under which each of the shippers that requested volumes is *apportioned* a share of the available capacity.

In 2004, Enbridge operated at approximately 80 percent of total capacity, with the actual throughput averaging 229 600 m³/d (Figure 20). Enbridge's Line 9, which ships oil from Montreal to Sarnia, operated at maximum capacity for most of the year with apportionment of over 20 percent. However, in the last quarter, production problems at the Terra Nova Field, offshore Newfoundland, and a decrease of imports into Ontario resulted in reduced demand for Line 9 capacity.

The Terasen (or Trans Mountain) Pipeline operated at over 90 percent of its light capacity during 2004. A small capacity expansion project of 4 300 m³/d was completed by October 2004. Increased demand by Anacortes, Washington refineries, greater shipments of heavier crude oil to the Westridge Dock, Vancouver and maintenance associated with the expansion contributed to several months of apportionment.

Express Pipeline Limited Partnership continued to operate at full capacity in 2004, at times exceeding 100 percent of its rated capacity. The high rate of capacity utilization on a number of these pipelines, combined with growing production from the oil sands and the incidences of apportionment, has led to several proposals to expand oil pipeline capacity.

Adequate electric power transmission facilities support functioning electricity markets by accessing generation

and enabling inter-regional trade. Infrastructure reliability also impacts a system's ability to deliver electricity to end use customers. In 2004, there were a number of developments across the country with respect to transmission infrastructure.

In May 2003, the National Energy Board approved NB Power's application to construct and operate a 95.5 kilometre, 345 kV international transmission line from the existing transmission terminal at Point Lepreau Generating Station to a point on the Maine-New Brunswick border west of St. Stephen, New Brunswick. Detailed route hearings are now planned for 2005.

In September 2004, Manitoba and Ontario entities proposed the Clean Energy Transfer Initiative. The proposed interprovincial power line would have an incremental transmission capacity of 1500 MW and would move power from northern Manitoba to southern Ontario in the 2013-2017 timeframe.

The Alberta Electric System Operator developed a plan to expand and upgrade its transmission system. Also in Alberta, a consortium, consisting of Rocky Mountain Power, Lectrix Ltd. and Scott Land and Permitting, proposed an \$80 million, 230 kV international transmission line to carry power between Alberta and Montana. Another proposed international transmission line still under consideration is Northern Lights which would move power from the Fort McMurray area to the U.S. Pacific Northwest.

In British Columbia, Sea Breeze Power Corp. and its subsidiary proposed a 1 600 MW high voltage direct current transmission line, to extend from its planned 450 MW wind farm on northern Vancouver Island to the U.S.

In June, after a number of consultations with stakeholders, the Board approved the Pipeline Services Survey which will survey shippers of ten major NEB-regulated pipeline companies. The pipeline companies are to send the survey to each of their active

shippers no later than 31 January of each calendar year starting January 2005. Shippers are to return one response which reflects their company's corporate views on the services provided by the pipeline being surveyed. The Board will publish a summary of the results in aggregate for all the surveyed companies. In addition, the Board will provide detailed company-specific results to each pipeline and to the shippers that responded to the survey. These results will include the pipeline company's average rating for each question as well as the verbatim comments received from shippers, with the source of those comments removed.

Energy Market Reports

The Board produces a number of publications and statistical reports which address various market aspects for all major energy commodities including oil, natural gas, natural gas liquids and electricity. In 2003, a third-party survey was conducted that indicated that the Board's analyses are highly valued for their accuracy, quality and objective viewpoint. In 2004, the Board sought input from a variety of stakeholders and the public on its proposed areas of study in energy markets. This input was used to develop the Energy Market Assessment (EMA) program for 2005/2006.

During 2004, the Board produced the following reports addressing various aspects of the oil, natural gas and electricity markets:

• Natural Gas Prices in the Maritimes provides the results of the Board's enhanced monitoring of gas prices being paid by Canadian consumers in the regional Maritimes market. The report found that: domestic and export prices are very closely linked; domestic buyers are paying about the same as export buyers at the St. Stephen, New Brunswick export point; the Maritimes market has very few buyers and sellers and limited supply which makes average prices very sensitive to individual transactions; and, additional supply is needed to support additional buyers and sellers to improve

market transparency. The report concludes that the Maritimes market is functioning properly, but the Board will continue to monitor developments.

- Canada's Conventional Natural Gas Resources: A Status Report reviews the current status of the Board's resource estimates for all sedimentary basins in Canada. The report includes the results of the Board's assessment of Alberta's resources which shows that the resource base has increased and that a larger portion of the undiscovered resources will be found in small pools in the shallower zones.
- The British Columbia Natural Gas Market: An Overview and Assessment examines the British Columbia (B.C.) market which has been challenged by higher prices, price spikes and higher price volatility in recent years. The report found that B.C. markets are linked to other North American markets and are subject to the same market influences. The report concludes that the B.C. market is functioning well and that market participants are responding as expected, with producers seeking to bring more supply to the market and buyers taking measures to reduce demand.
- Canada's Oil Sands: Opportunities and Challenges to 2015 provides an assessment of the current state of the oil sands industry, its potential for growth, and discusses the major issues and challenges facing the industry. The report highlights the large size of the potential oil resources in the oil sands and discusses all of the major issues that could impact the development of those resources in the years to come.
- A Compendium of Electric Reliability Frameworks
 Across Canada was motivated by ongoing
 issues surrounding the assurance of electric
 reliability in restructured electricity markets
 and by the 2003 power blackout that affected
 a large portion of Ontario. Both issues had
 raised concerns about the reliability of the

interconnected North American transmission grid. The Compendium describes, by province and territory, the roles of industry, governments and regulators in providing reliable electricity and addresses specific regional reliability issues.

- Looking Ahead to 2010: Natural Gas Markets In Transition reports on the results of a series of cross-country meetings with interested parties and stakeholders. With the premise that significant sources of new supply would not be expected prior to 2010, the report examines the implications and potential actions that could be taken by regulators, governments and market participants. Based on the meeting results, the Board will focus on improving the effectiveness and efficiency of its regulatory processes and the provision of energy market information.
- Short Term Canadian Natural Gas Deliverability 2004 2006 provides the Board's estimate of deliverability over the next two years. The Board expects a small increase in the total deliverability from Western Canada due to an increase in the annual number of gas wells drilled. The increase in deliverability primarily comes from natural gas from coal. The volume of conventional gas from offshore Nova Scotia is expected to be maintained at current levels over the next two years, but will be subject to considerable daily variability.

The Board also compiles several statistical reports related to its regulatory role in the oil, gas and electricity industries. Data is compiled on a monthly basis, with annual summaries available back to 1985. Subject areas include: natural gas exports, imports, volumes and prices, exports of propane and butane; crude oil and petroleum product exports; light and heavy crude oil export prices; crude oil supply and disposition; and imports and exports of electricity. All Board reports are available on the Internet site at www.neb-one.gc.ca/statistics/index_e.htm.

REGULATORY EFFICIENCY

The Board strives to make its regulatory processes as efficient and effective as possible. While facilitating market-based solutions will still be a large component of its regulatory strategy, the Board recognizes that regulation will play an important role for some time to come.

Smart Regulation

The Speech from the Throne 2004 renewed the 2002 federal government commitment to smart regulation as a key strategy in maintaining a Canadian advantage in a globally competitive world. An External Advisory Committee on Smart Regulation examined Canada's regulatory framework and produced a report recommending changes in Canadian regulatory strategy given the rapid pace of commerce, increasing complexity of policy issues, globalization, and rising public expectations.

The EACSR outlines Smart Regulation as:

- · both protecting and enabling;
- more responsive regulation; and
- governing cooperatively, with all levels of government, for the public interest.

In 2004, the Board focused its efforts on providing smart regulation by:

- advancing the use of goal-oriented regulation;
- processing applications in an efficient and timely manner, while diligently fulfilling its responsibility to protect the public interest;
- involving Canadians in numerous forums regarding regulatory development and energy markets;
- reviewing its processes, engaging in dialogue with stakeholders, clarifying expectations, implementing new approaches, and preparing for major applications; and

 negotiating with other agencies to ensure that regulatory processes are harmonized to minimize duplication.

Regulatory Operations and Maintenance Activities on NEB-Regulated Pipelines

In response to questions raised by companies regarding clarification of which operations and maintenance activities require an application under Section 58 of the NEB Act and which ones fall within the Streamlining Order, the Board initiated a project to provide clarity regarding the Section 58 application process. Additionally, this project will improve the Board's regulation of operation and maintenance activities.

Based on preliminary discussions with industry representatives, the Board has released a draft regulatory framework for the regulation of operations and maintenance activities that will reduce the regulatory burden for regulated companies while maintaining the appropriate levels of pipeline safety, environmental protections and respect for landowner rights. The Board also invited landowner associations to meet with staff or to submit written comments. Following completion of this consultation, the new regulatory framework is expected to be in place in 2005.

Service Standards

In 2004, the Board developed service standards for the cycle times of non-hearing Section 58 applications. The goal of this initiative is to provide increased certainty to applicants as to when a decision from the Board might be expected. Starting in 2005, each non-hearing Section 58 application will be classified into one of three categories based on its level of complexity, the estimated number and type of information requests which may be generated, the probability of third-party interest and the level to which a Regulatory Authority or Federal Authority may become involved in assessing the application. Shortly after filing an application, applicants will be notified of the category assigned and the estimated date for release of a decision.

As in previous years, requests for short-term natural gas, natural gas liquids, petroleum products and crude oil export orders continue to be processed within 48 hours of receipt by the Board.

NEB Filing Manual

As mentioned in the previous chapter, the Board released the *NEB Filing Manual* in April 2004 to provide guidance to companies preparing applications. The Filing Manual states the Board's expectations so that companies understand them in the preparation of their applications. The Board also held workshops to help users become familiar with the document and the procedures it contains.

Model International Power Line Conditions

In 2004, a set of *model* conditions were developed to be considered as a starting point for conditions to be applied to future Certificates of Public Convenience and Necessity issued for international power lines. Interested parties and industry stakeholders provided comments and feedback during the development of the conditions. The comments and feedback were then taken into consideration in arriving at the set of *model* conditions.

Appropriate Dispute Resolution (ADR)

The Board has developed an ADR program to find efficient and effective ways to resolve matters or increase understanding about issues either within or outside the regulatory process. The use of collaborative, interest-based processes is encouraged to help people share their views, listen to others and work together to resolve issues.

The Board encourages parties to work together to resolve matters, where appropriate, and provides trained staff to facilitate meetings. Workshops and conferences also provide opportunities for people to exchange information, share their views and work toward consensus in resolving issues. During 2004, the Board held a pre-hearing conference to clarify issues for

a toll and tariff hearing, and carried out a collaborative workshop focused on identifying solutions regarding cost recovery regulations related to the electricity industry.

Effective Cooperation

Energy projects often involve several jurisdictions, and where jurisdictions overlap, such as in the case of a northern pipeline proposal, the Board is working with a number of regulatory agencies to ensure that environmental assessment and regulatory issues are dealt with in a coordinated manner. Coordination efforts are focused on eliminating duplication while maintaining or enhancing meaningful public engagement.

Implementation of the Cooperation Plan for the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline through the NWT continued through 2004, with ongoing involvement by the 12 agencies with responsibilities for a pipeline. The Northern Gas Project Secretariat, established pursuant to the Cooperation Plan to support the review of the Mackenzie Gas Project and provide a public window on the project, continued its operations from Yellowknife and in April 2004, opened an office in Inuvik.

In the provinces of Alberta and British Columbia, the Board and the provincial regulators have had common databases for crude oil and natural gas reserves for a number of years. In 2004, the Board and each provincial regulator committed to the joint assessments of the natural gas resources in these provinces and expects to release the results of those assessments in 2005.

In an effort to increase efficiency of processes involving other federal departments, the NEB launched the Federal Authority Initiative, discussed under Goal 2. This initiative seeks to facilitate improved coordination and working relationships with other federal departments involved in NEB processes.

In the aftermath of the 2003 power blackout experienced in Ontario and the U.S. Northeast, the power industry,

governments and regulatory bodies alike have increased their focus on the reliability of the bulk power system infrastructures. As a regulator of international power lines, the Board remains an active participant in the efforts of industry (e.g., North American Electric Reliability Council) and the Canadian and U.S. Governments to strengthen and improve the reliability of the joint power system.

On the international level, the Board continues to meet regularly with the FERC and the Mexican

national energy regulator, the Comisión Reguladora de Energía. These agencies are committed to regular meetings to share perspective on regulatory approaches and to eliminate inconsistencies in those approaches. In May 2004, the NEB and FERC signed a Memorandum of Understanding (MOU) to enhance interagency coordination. Both agencies recognize that they oversee interconnecting facilities and activities and the MOU will help regulatory efficiency.



Goal 4:

The NEB fulfills its mandate with the benefit of effective public enegagement.



nsuring effective engagement is vital to the Board's decision making processes as it ensures fair and complete decisions. The scope of the Board's engagement opportunities has grown in recent years to include broad consultation on new processes, an increased number of meetings and hearings in affected communities, and a wider range of tools for the public to access information about the NEB's operations. This trend of increased participation has occurred in government decision-making at all levels.

Effective citizen engagement requires a commitment by all stakeholders for open, honest and transparent communication. Parties affected by proposed projects have the most at stake and require the NEB to live up to its commitment to public engagement. In 2004, the NEB changed the wording of Goal 4 to reflect that commitment. The new wording puts the emphasis on the benefit to the NEB, in the form of improving outcomes, of effectively engaging the public.

The NEB is committed to improving its services to Canadians. Throughout the year the NEB asks its stakeholders, through various consultations and surveys, if their needs are being met. This feedback is crucial to ensure the Board meets the needs of stakeholders.

BUILDING INTERNAL CAPACITY

The NEB is a learning organization. As the needs of stakeholders change, the Board adapts. This is especially evident with the NEB's Appropriate Dispute Resolution (ADR) program, Aboriginal Engagement program, and E-filing. Each of these programs was initiated to better meet the needs of the NEB's stakeholders.

Increasing Collaboration

The Board's ADR program provides a flexible framework for parties to work together to increase understanding about issues and, where appropriate, work toward win-win outcomes. Given the importance of long-term relationships among many people affected by the Board's work, opportunities for face-to-face, collaborative discussion are a key way to learn more about others' views and foster more productive relationships.

Whether arranging small group meetings for landowners and company representatives or large workshops with many participants, Board staff work collaboratively with the parties to ensure the session will encourage participation and make effective use of everyone's time. Positive feedback was received from landowners and company representatives in Board staff facilitated meetings and from participants in two workshops held in the fall of 2004 on the topics of Cost Recovery Regulations for Electricity and Regulatory Improvement.

The NEB and the Alberta Energy and Utilities Board are honourary members of the Company to Company (C2C) ADR Council which represents 10 industry and professional associations. The Council is committed to promoting improved conflict management among companies within the energy sector. In April 2004, the Council hosted a conference and released a handbook titled *Let's Talk*. The handbook provides case studies, tools and other resources for people looking for more effective ways to resolve conflicts within the energy industry and is available for purchase through the Council. For more information, contact the Board's ADR specialists at ADR-MRD@neb-one.gc.ca.

Enhancing Aboriginal Engagement

During the past year, the Board has continued enhancing Aboriginal engagement. A large part of this has included the further development of internal capacity for understanding Aboriginal issues, as well as outreach to Aboriginal communities.

Various internal tools are available to staff to increase understanding of Aboriginal context and perspectives when it comes to the regulatory arena. A searchable database of information about Aboriginal communities across Canada continues to expand and be available to all NEB employees. An Aboriginal issues tracking system, which was established in 2003, also continues to inform employees about topics of concern or interests raised by Aboriginal groups and individuals. Other value-added tools and advice on engagement opportunities are offered to staff on an ongoing basis.

The NEB has also undertaken outreach efforts into the broader community through informal presentations, community meetings and attendance at conferences and Aboriginal-focused events.

Improving E-filing

E-filing allows applicants and intervenors the option of submitting regulatory documents electronically. It also provides all Canadians with the opportunity to view these documents on-line. The NEB's e-filing system enhancements were completed in 2004. These enhancements allow individuals to file letters of comment and apply for Intervenor status on-line. In addition, significant improvements were implemented for submitting documents and for browsing regulatory documents.

The NEB has experienced significant increases in the number of documents e-filed during the last three years. This year, 3 105 documents were e-filed. The number of documents filed has tripled since e-filing began in 2002. These increases are attributable to the improved e-filing system and the benefit it provides for stakeholders.

Implementing Service Standards

In today's results-based management environment, service standards have become an essential tool for building effective citizen-focused service within organizations. The Board has reviewed a number of its processes with a goal of establishing standards for service delivery to clients. To date, some of the service standards established include: release of hearing decisions, Section 58 cycle times, export/import authorizations, COGO Act applications, landowner complaints, requests for information and publications, and correspondence.

The objective is to offer clarity to clients about what to expect from the Board, how services will be delivered and what clients can do when services received are not acceptable. Service standards also provide an indicator of performance that the Board can track and report on publicly and use as a basis for service improvement. These targets are being developed in consultation with key clients who could be impacted by a change in service and who have had experience with Board processes and services.

UNDERSTANDING PUBLIC ENGAGEMENT NEEDS

The Board is able to offer effective public engagement options by understanding how individuals want to participate in its processes. Through various tools, including surveys, the Board can better understand the needs of its stakeholders.

Feedback

Landowner survey

In 2004, the NEB retained Environics Research Group, an independent research firm, to undertake a telephone survey of landowners who have an NEB-regulated pipeline on their land. The purpose of the survey was to systematically and objectively collect information from landowners across Canada about their perceptions of pipeline safety, company and Board communications and handling of landowner complaints. In March, over 1 100 telephone interviews were conducted with landowners across Canada.

To help determine client satisfaction with the Board's service and identify areas for improvement, the survey included questions from the Common Measurements Tool (CMT). The CMT, developed by Treasury Board, provides a common set of benchmark measures to facilitate comparisons across a wide spectrum of public sector services and products.

The key survey results include:

Pipeline safety:

- Landowners generally feel safe having a pipeline on their property, and have confidence in the company operating it; and
- Most landowners appear to be familiar with basic pipeline safety procedures and excavation requirements.

Landowner Contact with Company:

- One-third of landowners have initiated contact with their pipeline company within the past five years to discuss construction issues, property damage or compensation; and
- Most landowners are highly satisfied with the response received from companies.

Landowner Contact with the NEB:

- More than eight in 10 landowners have heard of the NEB, but few have had any direct contact; and
- Direct contact has been made primarily by phone or letter.

Industry Survey

The Industry Survey had similar objectives to the Landowner Survey. The objectives were to measure company and association experiences and satisfaction with NEB contacts, obtain industry perspectives about the key issues facing the NEB, the extent to which the NEB is realizing its vision, and to provide recommendations for future research and communications with industry stakeholders. Telephone interviews were conducted by Environics with 24 industry representatives.

The key findings in the survey include:

- NEB's application process was given high marks in terms of providing good information, useful application tools and opportunities for pre-filing contact;
- The Internet site is actively used by industry (mostly for information on the NEB or on specific decisions), and it generally meets expectations; and
- Industry contacts are generally positive about the service received when directly contacting the NEB.

Post-hearing surveys

To ensure the Board meets the need of hearing participants, each receive a survey to fill in at the conclusion of a hearing. The survey measures the participant's level of satisfaction with various factors including overall satisfaction (Figure 21).

Board Visits

Board Members periodically visit NEB-regulated energy facilities in different regions of Canada to gather first hand information about energy matters. This year Board Members visited sites in two provinces associated with natural gas from coal developments. In August, they visited a pilot project near Fernie, British Columbia. The Board Members observed wells, pumping systems and water disposal facilities. In October, Board Members spent a day visiting various sites near Beiseker, Alberta. The sites visited included a compressor station and a well site.

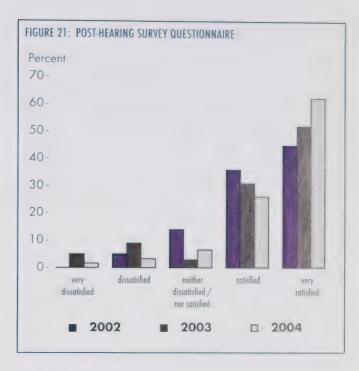
REMOVING BARRIERS

By improving and better communicating processes, the NEB can better serve its stakeholders.

Hearing Tool Kit

One of ways the NEB is removing barriers to participation, is with the Hearing Tool Kit for NEB staff use. It is a framework that identifies, develops, implements and maintains various options or tools for public engagement to increase the efficiency and effectiveness of NEB hearings. There are currently several tools, such as participation categories, procedural updates, and workshops, used in the hearing process to engage the public.

Through the ongoing development of tools for effective engagement, feedback mechanisms, and processes for continuous improvement and best practices for public hearings, the Board is demonstrating its commitment to enhance the efficiency and effectiveness of its hearings.



Resolving Landowner Complaints

The NEB received 20 landowner complaints, which related to safety, protection of the environment and rights of affected parties, and other matters, including compensation and related concerns. Board staff met with the landowners and company representatives for nine of these complaints. As well, a pre-ADR process was used with one landowner complaint, in which the landowners, company representatives and Board staff met to discuss the issues and develop a plan for complaint resolution.

Board staff also worked collaboratively with various provincial governments in association with six of these landowner complaints. Two complaints were referred to the provincial governments for resolution and, for one landowner complaint, Board staff participated in an inspection and consulted with provincial government representatives. NEB staff also met with two Group 1 companies to provide detailed information regarding the landowner complaint process and solicit feedback regarding the process.

INVOLVING CANADIANS

Consultations

Each year, the NEB consults its stakeholders in a number of different ways. One way is by inviting the public to comment on various documents. In 2004, people were able to comment on the Environmental Assessment for the Proposed Beaufort Sea Exploration Drilling Program and the Environmental Scoping document for a proposed liquefied natural gas Rabaska Project. The comments received are considered prior to moving to the next stage of a project.

The NEB also consulted various stakeholders when preparing its latest Energy Market Assessments. Some of these include consultations for Canada's Oil Sands: Challenges to 2015, Short-term Canadian Natural Gas Deliverability 2004–2006, Looking Ahead to 2010 – Natural Gas Markets in Transition, and The British Columbia Natural Gas Market: An Overview and Assessment. For Looking Ahead to 2010 – Natural Gas Markets in Transition the Board sponsored eight roundtable sessions in major Canadian cities to examine how natural gas markets may evolve to the end of the decade. The report summarizes the feedback and recommendations received during these roundtable sessions.

The NEB also meets twice each year with the Cost Recovery Liaison Committee, a joint committee of industry representatives subject to cost recovery charges. The mandate of the committee is to discuss NEB cost recovery methodology and regulations, and to provide a forum to explain its financial statements, planned expenditures, goals and initiatives.

Public Information Sessions

In November, the Board held a number of public information sessions for people who could be affected by the Mackenzie Gas Project. These sessions were held in Inuvik, Norman Wells, Yellowknife, Fort Simpson,

and Enterprise in the Northwest Territories and High Level in Alberta. The sessions hosted by Joint Review Panel Staff, National Energy Board Staff and Northern Gas Project Secretariat Staff included an overview of the environmental assessment and regulatory review and public hearing processes.

Awareness Workshop in Montreal

Over 100 delegates attended the 2004 Public Awareness Workshop held in Montreal from September 26 to 28. This is the fifth NEB Public Awareness Workshop, and from its inception the goal has been to create a forum for industry to share its best practices related to public awareness, damage prevention and emergency response. Security was added to the agenda this year. In the feedback questionnaire, attendees gave the conference high marks overall. More than 80 percent were satisfied with the Workshop.

Regulatory Improvement Workshop

Understanding the challenges faced by those who are affected by NEB matters and being prepared to adjust the NEB's focus, are critical components of regulatory improvement. The NEB hosted a workshop in November involving 60 different stakeholder representatives. The objectives for the workshop were: to obtain a clear understanding of the current and emerging challenges stakeholders face; to understand and discuss stakeholders' ideas regarding the areas in which the Board should focus over the next three years to best respond to those challenges; and to determine if there is a need to create a long term plan or vision for achieving public interest goals out to the year 2015. Through the workshop, it was clear that stakeholders generally support the NEB's regulatory program and plans. As a result of the workshop, the NEB refined its Strategic Plan to include more emphasis on continued stakeholder engagement and to expand the Board's efforts in providing advice to policy makers regarding regulatory and related energy issues.

COMMUNICATING WITH CANADIANS

Internet site

The Board's Internet site is the preferred point of contact for many stakeholders. During 2004, the Board continued increasing Internet site accessibility for Canadians by providing easier navigation and readability for those visually impaired and making Board documents more readable in most Web browsers. The Board also continued to provide on-line broadcasts of its hearings and made transcripts of the hearings available on its Internet site. In 2004, the NEB had 372 656 hits on its Internet site.

News Releases

The Board issued 21 news releases in 2004. The nature of the releases included information about public hearings, Board decisions on applications, invitations to comment and publication releases. NEB news releases are distributed through a national newswire service and are also available through the NEB's Internet site and Library.

Toll-free phone (1-800-899-1265) and toll-free fax (1-877-288-8803)

Canadians are able to contact the Board free-of-charge by phone or fax. In 2004, 4 525 calls were received on the phone line. The number of calls to the toll-free phone line has decreased by just over 700 calls from 2003. This decrease is likely due to fewer hearings throughout the year. The toll-free fax line is a new service offered for the first time this year.

Publications

Each year the NEB produces publications for its various stakeholders. Some of the new publications for 2004 include: A Proposed Pipeline or Power Line Project: What You Need to Know, as well as Energy Market Assessments. These publications are mailed to key stakeholders, and are available through the NEB's Internet site and Library. Each publication contains a comment card, and the reader can return the card, postage paid, to provide the NEB with feedback. In 2004, 68 comment cards were received. The readers rated the NEB's publications highly, with 79.4 percent of respondents satisfied with the information presented in a particular document.

EFFECTIVE LEADERSHIP AND MANAGEMENT



Goal 5:

The NEB is effective in leading its people and managing its resources.



oal 5, added in 2003, includes the integration of planning and reporting activities with the ultimate objective of enhanced coordination and knowledge and information sharing across the Board. Through this goal the NEB focuses on accountability both in terms of leadership practices and skill development and in turn, establishes a requirement to define performance standards in order to measure results.

The NEB carries forward the following two high level-performance measures from 2003 as a means of evaluating success:

- Employee Satisfaction: Data collection will take place through triennial employee surveys with a summary of the results subsequently being released to the Board's management. Since two survey years of data are currently available for this measure, benchmarking against the available public service data has now begun and is expected to continue into the future.
- Per-Capita Cost of Regulation for Selected Jurisdictions: Calculated annually, this formula measures the annual operating budget of other provincial and federal regulatory bodies divided by the population served.

Effective communication with employees about the contribution they can make towards achieving success is critical. Throughout 2004, the Board utilized a variety of tools including the intranet, all staff meetings and questions to the Chief Operating Officer to communicate intentions around this corporate goal to all NEB staff members.

In support of Board efforts, an organizational review was undertaken in order to validate whether corporate resources were aligned effectively in order to achieve the greatest return possible on investment. This was the first formal review since the 1997 re-organization and the NEB was seeking confirmation of whether the existing model continued to be useful. Subsequent to the review, the Board elected to implement a number of recommendations that included the creation and staffing of Group Leaders, a review of NEB competencies and transferring the Communications function to the Executive Office from Information Management.

As a result of the strategic planning exercise in the fall of 2004, the Board recognized a growing need for a focus on effective stakeholder engagement, advice to policy makers and the development of forward-looking regulatory programs and plans. In response, the creation of a new Business Unit responsible for leading these efforts was considered. In addition, in order to better align and reinforce service delivery, the amalgamation of the existing Corporate

Services and Information Management business units was recognized as a positive step. The decision to act on both of these opportunities and to restructure the NEB will come into effect on 1 April 2005.

The performance measures for this Goal continue to evolve as the NEB's commitment to leadership development is rolled out. The corporate objective is to achieve a greater balance between technical capabilities and leadership skills. An analysis of the current leadership skills inventory in comparison to planned outcomes has been helpful in creating a relevant and realistic learning plan that will support the appropriate adjustments.

The immediate focus is to develop the current management cadre. Once progress has been achieved within this group, the plan is to expand the development of leadership skills to those employees who have demonstrated the potential and interest to be our leaders of the future. Ultimately, the NEB will be better situated to respond to the needs of both internal and external stakeholders.

NEB'S EXPENDITURES AND FINANCIAL REPORTING

The NEB's expenditures and staff levels for the last eight fiscal years are illustrated in Table 9. Funding for the NEB is provided by the Government of Canada. The government, in turn, recovers costs from companies whose facilities are regulated by the NEB. The NEB continues to recover approximately 90 percent of its operating costs from regulated industries. Additional information on budgets and plans may be found in the NEB's 2004–2005 Main Estimates, Part II and the 2004–2005 Estimates Part III – Report on Plans and Priorities, both of which are available on the NEB's Internet site.

In order to meet Treasury Board's fiscal year end requirements and the cost recovery calendar year requirements, the NEB prepares two sets of annual financial statements. The first set is prepared on a fiscal year period ending March 31 using the accrual

basis of accounting in accordance with Treasury Board of Canada Accounting Standards based on Canadian Generally Accepted Accounting Principles. These financial statements form part of the Public Accounts of Canada. The Office of the Auditor General determines when or if it will audit the NEB's Public Account financial statements in order to express an opinion on the consolidated statements of the Government of Canada.

The second set of financial statements, for cost recovery purposes, is prepared on a calendar year period using the accrual basis of accounting in accordance with Treasury Board of Canada Accounting Standards based on Canadian Generally Accepted Accounting Principles. These statements are audited by the Office of the Auditor General on an annual basis and are used as the basis for determining the costs recovered in accordance with the National Energy Board Cost Recovery Regulations.

Further information on either set of financial statements can be obtained by contacting the NEB. The consolidated financial statements for the Government of Canada can be found at www.pwgsc.gc.ca/recgen/text/pub-acc-e.html. The audited financial statements for cost recovery purposes can be located on the Board's Internet site at www.neb-one.gc.ca/pubs/index_e.htm.

1997 - 1998 1998 - 1999 1999 - 2000	28 048 53 187 (a)	264
1999 - 2000	53 187 (3)	077
		277
0000 0001	26 900	286
2000 - 2001	26 216	289
2001 - 2002	28 836	281
2002 - 2003	31 232	287
2003 - 2004	31 189	297
2004 - 2005	33 274 151	299

NEB AS A SEPARATE EMPLOYER

The NEB has been a separate employer since December 1992. As a Public Service separate employer, the authority to carry out certain personnel management functions has been transferred from Treasury Board to the Chairman of the NEB. With the transfer of authority comes the responsibility for creating and maintaining an NEB classification system, the development of human resource management policies and practices and collective bargaining.

Although a separate employer, the NEB continues to be bound by federal legislation. The Board is governed by the terms of the *Public Service Employment Act* (PSEA) in respect to promotion and recruitment. Employee and employer relations are subject to the *Public Service Staff Relations Act* (PSSRA). As a result, the NEB is subject to public service reductions and public service wage restraint decisions. Financial matters are governed by the *Financial Administration Act* (FAA) as administered by Treasury Board. Furthermore, the NEB is bound by the provisions and standards set out in the *Official Languages Act* and the *Employment Equity Act*.

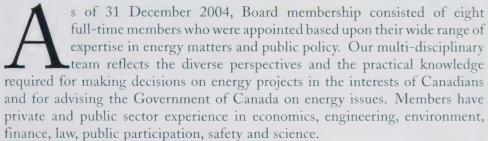
In November 2003, with the coming into force of the *Public Service Modernization Act* (PSMA), all federal employers were advised of the changes associated with

legislative reform and how those changes would be implemented across the federal public service. In 2004, the NEB began preparing to implement the changes associated with the PSEA (December 2005), the new *Public Service Labour Relations Act* (PSLRA, April 2005) which supercedes the PSSRA, and the FAA (April 2005). Central agencies including the Canada School of the Public Service and Treasury Board have accepted responsibility to communicate all changes through an education program involving a combination of classroom instruction and on-line learning that will be available to both line managers and human resource practitioners in the coming year.

In 2004, the consolidation of two bargaining agents occurred as the Professional Institute of the Public Service of Canada (PIPSC) became the sole bargaining agent to represent the interests of NEB unionized employees. This decision, determined through a collective membership vote, was preceded by presentations to the Public Service Staff Relations Board and considerable consultation within the two membership bodies. Following the vote, the NEB and PIPSC began negotiating the terms of a collective agreement for all unionized NEB staff members and these negotiations were successfully concluded with a tentative agreement signed on November 15, 2004¹⁰.

^{10.} Anticipate agreement to be signed in February 2005.





KENNETH W. VOLLMAN, CHAIRMAN

A native of Saskatchewan, Mr. Vollman has a Master's degree in Mechanical Engineering from the University of Saskatchewan and is a member of the Association of Professional Engineers of Alberta. Mr. Vollman has spent his career working in the energy sector, gaining his practical experience with oil and gas production while working in the private sector. During his career at the NEB, Mr. Vollman gained experience in energy supply and demand, pipelines, energy regulatory issues and management. In 1998, he was designated as Chairman after serving as a Member and Vice-Chairman. Over the past 35 years, Mr. Vollman has authored and presented numerous papers at Canadian and international conferences.



JEAN-PAUL THÉORÊT, VICE-CHAIRMAN

(resigned effective 31 December 2004)

A native of Quebec, Mr. Théorêt has a diverse educational and professional background in business, economics, law and energy regulation. Mr. Théorêt was a Commissioner of the Régie de l'énergie in Quebec for eight years. He was elected to the Quebec National Assembly in 1985 where he served as Parliamentary Assistant to the Minister of Industry, Trade and Technology, as well as Vice-Chairman of the Committee on Labour and the Economy. Mr. Théorêt has 30 years of business experience, serving as an Executive Vice President of a large food distribution company and owner of food stores in Quebec. A member of the NEB since 1999, he was designated Vice-Chairman in 2002.

GAÉTAN CARON, VICE CHAIRMAN

(effective 1 January 2005)

Originally from Quebec, Mr. Caron obtained his Bachelor of Applied Sciences degree from Laval University and his Master of Business Administration degree from the University of Ottawa. Mr. Caron joined the NEB in 1979, where he has held several senior positions. Prior to his appointment as a Board Member, he held the position of Chief Operating Officer. Mr. Caron is a member of the board of the United Way of Calgary and Area.

ROWLAND J. HARRISON

Originally from Australia, Mr. Harrison has a Master of Laws degree from the University of Alberta and is a member of the bars of Nova Scotia, Ontario and Alberta. He has gained extensive advisory, consulting and research experience in various aspects of energy regulation and policy during his career.

Mr. Harrison has extensive experience as an advisor on energy regulation to provincial, territorial, federal and foreign governments. He has been Professor of Law at the University of Ottawa, Dalhousie University, the University of Calgary and the University of Alberta. Most recently, he was a partner in the Calgary office of Stikeman Elliott, a national and international Canadian law firm.

JOHN S. BULGER

Originally from Manitoba, Dr. Bulger has a Ph.D. in Physical Chemistry from York University in Toronto, as well as a Graduate Management Diploma from McGill University in Montreal. He has experience in procurement, operations, planning, regulatory affairs and providing advice on energy issues. Prior to being appointed to the Board, he held the position of Senior Manager, Regulatory Affairs at Maritimes and Northeast Pipeline in Halifax, Nova Scotia. He also spent almost 20 years at Gaz Métropolitain in various senior management positions. He began his career at DuPont of Canada Ltd. Dr. Bulger is a member of the Chemical Institute of Canada.

ELIZABETH (LIZ) QUARSHIE

Originally from Ghana, Ms. Quarshie has a Master's degree in Business Administration from the University of Saskatchewan and a Master of Science degree in Environmental Engineering from Washington State University. She is a member of the Association of Professional Engineers and Geoscientists of Saskatchewan and is a Certified Professional Environmental Auditor.

Ms. Quarshie has more than 15 years experience in the energy sector and has held a portfolio of senior management positions at Cogema Resources Inc. and Cameco in Saskatoon, and directed programs such as occupational health and safety, environmental impact assessments, compliance and public affairs. She also has extensive industry experience in project planning and design, development, implementation, monitoring and decommissioning. Ms. Quarshie has experience in radiation protection, air pollution control, solid and hazardous waste management, water and wastewater treatment, research and evaluation, environmental

management systems, audits and community development.

DEBORAH W. EMES

Originally from Saskatchewan, Ms. Emes has a Master of Arts in Economics from the University of Calgary and is a Chartered Financial Analyst. She has practical and academic expertise in providing regulatory, economic and market advice. Ms. Emes has held positions in the public and private sectors, including Manager, Strategic Services for the British Columbia Utilities Commission. She has taught rate design and cost of capital training seminars for the Canadian Association of Members of Public Utility Tribunals.

CARMEN L. DYBWAD

A native of Saskatchewan, Dr. Dybwad has a Ph.D. in Regional Planning and Resource Development from the University of Waterloo. She has an educational background in economics as well as practical and academic expertise in public participation, resource development and the electricity sector. Dr. Dybwad has held several positions with the Government of Saskatchewan and the Saskatchewan Power Corporation, including Manager of Environmental Policy and Planning. Most recently, she was an assistant professor

at the University of Regina where she taught classes in ecological economics, sustainable development and public administration.

DAVID HAMILTON, TEMPORARY BOARD MEMBER

Originally from Scotland, Mr. Hamilton holds a Master of Arts in Leadership and Training from the Royal Roads University, Victoria, British Columbia. Mr. Hamilton has more than 30 years of experience working in the Northwest Territories in the development of people and communities through both the parliamentary and democratic processes. He was Deputy Minister and Clerk of the Legislative Assembly of the Northwest Territories for 20 years. Following division of the NWT in 1999, Mr. Hamilton administered the first general election for Members to the Legislative Assembly in Canada's two new Territories, Nunavut and the Northwest Territories. He has also participated in the ratification votes for the Gwich'in Land Claim Agreement, the Sahtu Settlement Agreement and the Inuit Land Claim Settlement.

Mr. Hamilton has been appointed Temporary Board Member for matters related to the Mackenzie Gas Project application.



ACTS

National Energy Board Act
Canada Labour Code, Part II
Canada Oil and Gas Operations Act
Canada Petroleum Resources Act
Canadian Environmental Assessment Act
Energy Administration Act
Mackenzie Valley Resource Management Act
Northern Pipeline Act
Species at Risk Act

REGULATIONS AND ORDERS PURSUANT TO THE NATIONAL ENERGY BOARD ACT

National Energy Board Act Part VI (Oil and Gas) Regulations
National Energy Board Cost Recovery Regulations

National Energy Board Electricity Regulations

National Energy Board Export and Import Reporting Regulations

National Energy Board Gas Pipeline Uniform Accounting Regulations

National Energy Board Oil Pipeline Uniform Accounting Regulations

National Energy Board Oil Product Designation Regulations

National Energy Board Onshore Pipeline Regulations, 1999

National Energy Board Order No. M0-62-69

National Energy Board Pipeline Crossing Regulations, Part I

National Energy Board Pipeline Crossing Regulations, Part II

General Order No. 1 Respecting Standard Conditions for Crossings by Pipelines

General Order No. 2 Respecting Standard Conditions for Crossings of Pipelines

National Energy Board Power Line Crossing Regulations

National Energy Board Processing Plant Regulations

National Energy Board Rules of Practice and Procedure, 1995

National Energy Board Substituted Service Regulations

Pipeline Arbitration Committee Procedure Rules, 1986

Regulations amending the National Energy Board Cost Recovery Regulations (21 October 2002)

Section 58 Streamlining Order XG/XO-100-2002

Toll Information Regulations

GUIDELINES, GUIDANCE NOTES AND MEMORANDA OF GUIDANCE PURSUANT TO THE NATIONAL ENERGY BOARD ACT

Appropriate Dispute Resolution (ADR) Guidelines (18 July 2003)

Consultation with Aboriginal Peoples: National Energy Board Memorandum of Guidance (4 March 2002)

Filers Guide to Electronic Submission (1 December 2004)

Filing Manual (April 2004)

Filing of Supply Information in Compliance with the Board's Part VI (Oil and Gas) Regulations (16 May 1997)

Filing Procedures for Section 104 Right of Entry Order Applications (27 October 1999)

Financial Regulatory Audit Policy of the National Energy Board (23 February 1999)

Guidance Notes for the *Onshore Pipeline Regulations*, 1999 (7 September 1999) Amendment I (20 January 2003)

Guidance Notes for Pressure Equipment under National Energy Board Jurisdiction (8 August 2003)

Guidance Notes for the *Processing Plant Regulations* (28 July 2003) including: Appendix I – Guidance Notes for the Design, Construction, Operation and Abandonment of Pressure Vessels and Pressure Pipeline (3 July 2003) and Appendix II – Security and Emergency Preparedness and Response Programs (24 April 2002)

Guidelines for Negotiated Settlement of Traffic, Tolls and Tariffs (12 June 2002)

Guidelines Respecting the Environmental
Information to be Filed by Applicants for
Authorization to Construct and Operate Gas
Processing and Straddle Plants, Liquid Natural
Gas (LNG) Plants and Terminals, Natural Gas
Liquids (NGL), Liquid Propane Gas (LPG) and
Butane Plants and Terminals, under Part III of
the National Energy Board Act (26 June 1986)

Investigative Digs and Related Pipeline Repairs/ Replacements (2 December 2002 and 26 February 2003)

Memorandum of Guidance – Electronic Filing, National Energy Board Rules of Practice and Procedure, 1995 (21 March 2002)

Memorandum of Guidance - Concerning Full Implementation of the September 1988 Canadian Electricity Policy (Revised 23 January 2003)

Memorandum of Guidance – Implementation of the Fair Market Access Procedure for the Licensing of Long-term Exports of Crude Oil and Equivalent (17 December 1997)

Memorandum of Guidance - Regulation of Group 2 Companies (6 December 1995)

Memorandum of Guidance - Retention of Accounting Records by Group 1 Companies Pursuant to Gas/Oil Pipeline Uniform Accounting Regulations (30 November 1994)

National Energy Board Pre-Application Meetings Guidance Notes (26 February 2004)

Performance Measures filed as part of Year-end Quarterly Surveillance Reports (26 January 1996)

Security and Emergency Preparedness and Response Programs (includes document entitled Expected Elements for Emergency Preparedness and Response Programs) (24 April 2002)

REGULATIONS PURSUANT TO THE CANADA OIL AND GAS OPERATIONS ACT

Canada Oil and Gas Certificate of Fitness Regulations
Canada Oil and Gas Diving Regulations
Canada Oil and Gas Drilling Regulations
Canada Oil and Gas Geophysical Operations
Regulations

Canada Oil and Gas Installations Regulations
Canada Oil and Gas Operations Regulations
Canada Oil and Gas Production and Conservation
Regulations

Oil and Gas Spills and Debris Liability Regulations

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE CANADA OIL AND GAS OPERATIONS ACT

Guidance Notes for the Canada Oil and Gas Drilling Regulations

Guidelines Respecting Physical Environmental Programs during Petroleum Drilling and Production Activities on Frontier Lands

Notice of Revised Offshore Waste Treatment Guidelines (21 August 2002)

REGULATIONS PURSUANT TO THE CANADA PETROLEUM RESOURCES ACT

Environmental Studies Research Fund Regions Regulations

Frontier Lands Petroleum Royalty Regulations
Frontier Lands Registration Regulations
Lancaster Sound Designated Area Regulations
Order Prohibiting the Issuance of Interests at Lapierre
House Historic Site in the Yukon Territory

Order Prohibiting the Issuance of Interests at Rampart House in the Yukon Territory

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE CANADA PETROLEUM RESOURCES ACT

Northwest Territories – Nunavut - Guidance Notes for Applicant - Applications for Declaration of Significant Discovery and Commercial Discovery (January 1997)

Applications for Declaration of Significant
Discovery and Commercial Discovery – Directly
Affected Persons (17 November 2003)

REGULATIONS PURSUANT TO THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT

Comprehensive Study List Regulations
Exclusion List Regulations
Federal Authorities Regulations
Inclusion List Regulations
Law List Regulations
Projects outside Canada Environmental Assessment
Regulations

Regulations Respecting the Co-ordination by Federal Authorities of Environmental Assessment Procedures and Requirements

REGULATIONS PURSUANT TO THE CANADA LABOUR CODE, PART II

Canada Occupational Health and Safety Regulations Oil and Gas Occupational Safety and Health Regulations

Safety and Health Committees and Representatives Regulations

REGULATIONS PURSUANT TO THE MACKENZIE VALLEY RESOURCE MANAGEMENT ACT

Exemption List Regulations Mackenzie Valley Land Use Regulations Preliminary Screening Requirement Regulations

REGULATIONS PURSUANT TO THE NORTHERN PIPELINE ACT

Northern Pipeline Notice of Objection Regulations
Northern Pipeline Socio-Economic and
Environmental Terms and Conditions for
Northern British Columbia

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Alberta

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Saskatchewan

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for Southern British Columbia

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Swift River Portion of the Pipeline in the Province of British Columbia

Order Designating the Minister of Natural Resources as Minister for Purposes of the Act Transfer of Duties, in Relation to the Pipeline, of Certain Ministers under Certain Acts to the Member of the Queen's Privy Council for Canada Designated as Minister for Purposes of the Act

Transfer of Duties, in Relation to the Pipeline, of the National Energy Board under Parts I, II and III of the *Gas Pipeline Regulations* to the Designated Minister for Purposes of the Act Transfer of Powers, Duties and Functions (Kluane National Park Reserve Lands) Order Transfer of Powers, Duties and Functions (Territorial Lands) Order

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE SPECIES AT RISK ACT

The Coming into Force of Specific Sections of the Federal *Species at Risk Act*, S.C. 2002, c. 29 and its Effect on Applications before the National Energy Board (letter dated 11 September 2003)



COMPANIES WITH FACILITIES OR ACTIVITIES REGULATED BY THE NEB

The following pipeline companies and electric power entities construct or operate interprovincial or international pipelines or power lines under the NEB's jurisdiction, as of 31 December 2004. The pipeline companies have been divided into two groups. Group 1 gas and oil pipelines are the major pipeline companies subject to active regulatory oversight by the NEB. Group 2 consists of all other pipeline companies under the NEB's jurisdiction. For purposes of cost recovery, there are three classifications for companies: large, intermediate and small. The criteria for determining a company's classification are based on its size, throughput, and cost of service.

Group 1 Gas Pipelines

Alliance Pipeline Ltd.
Foothills Pipe Lines Ltd.
Gazoduc Trans Québec & Maritimes Inc.
Maritimes & Northeast Pipeline Management Ltd.
TransCanada PipeLines Limited
TransCanada PipeLines Limited, B.C. System
Westcoast Energy Inc.

Group 1 Oil and Products Pipelines

AltaGas Services Inc.

Cochin Pipe Lines Ltd. Enbridge Pipelines Inc. Enbridge Pipelines (NW) Inc. Terasen Pipelines (Trans Mountain) Inc. Trans-Northern Pipelines Inc.

Group 2 Gas Pipelines

AltaGas Suffield Pipeline Inc.
AltaGas Transmission Ltd.
Apache Canada Ltd.
ARC Resources Ltd.
Bear Paw Processing Company (Canada) Ltd.
Bellator Exploration Inc.
BP Canada Energy Company
Canada Customs and Revenue Agency
Canadian Hunter Exploration Ltd.
Canadian Natural Resources Limited
Canadian-Montana Pipe Line Corporation
Centra Transmission Holdings Inc.
Champion Pipeline Corporation Limited
Chief Mountain Gas Co-op Ltd.

DEFS Canada L.P.

Devon Energy Canada Corporation

Enbridge Gas Distribution Inc.

EnCana Border Pipelines Limited

EnCana Ekwan Pipeline Inc.

EnCana Oil & Gas Co. Ltd.

EnCana Oil & Gas Partnership

EnCana West Ltd.

ExxonMobil Canada Properties

Forty Mile Gas Co-op Ltd.

Gibson Energy Ltd.

GSX Canada Limited Partnership

Huntingdon International Pipeline Corporation

Husky Oil Operations Ltd.

KeySpan Energy Canada Company

Many Islands Pipe Lines (Canada) Limited

Mid-Continent Pipelines Limited

Minell Pipeline Limited

Murphy Canada Exploration Company

Murphy Oil Company Ltd.

Niagara Gas Transmission Limited

Northstar Energy Corporation

Olympia Energy Inc.

Omimex Canada, Ltd.

Paramount Transmission Ltd.

Peace River Transmission Company Limited

Pengrowth Corporation

Penn West Petroleum Ltd.

Petrovera Resources Ltd.

Pioneer Natural Resources Canada Inc.

Portal Municipal Gas Company Canada Inc.

Profico Energy Management Ltd.

Regent Resources Ltd.

Renaissance Energy Ltd.

St. Clair Pipelines Management Inc.

Samson Canada, Ltd.

Shiha Energy Transmission Ltd.

Sierra Production Company

Suncor Energy Inc.

Taurus Exploration Canada Ltd.

Union Gas Limited

Vector Pipeline Limited Partnership

County of Vermilion River No. 24 Gas Utility 3398251 Canada Ltd.

Group 2 Oil and Products

Amoco Canada Petroleum Company Ltd.

Aurora Pipe Line Company

Berens Energy Ltd.

BP Canada Energy Company

ConocoPhillips Canada Limited

Dome Kerrobert Pipeline Ltd.

Dome NGL Pipeline Ltd.

Enbridge Pipelines (Westspur) Inc.

Ethane Shippers Joint Venture

Express Pipeline Limited Partnership

Genesis Pipeline Canada Ltd.

Glencoe Resources Ltd.

Husky Oil Limited

Imperial Oil Resources Limited

ISH Energy Ltd.

Montreal Pipe Line Limited

Murphy Oil Company Ltd.

Nexen Marketing

NOVA Chemicals (Canada) Ltd.

PanCanadian Kerrobert Pipeline Ltd.

Paramount Transmission Ltd.

Penn West Petroleum Ltd.

Plains Marketing Canada, L.P.

PMC (Nova Scotia) Company

Pouce Coupé Pipe Line Ltd. as agent and general

partner of the Pembina North Limited

Partnership

PrimeWest Energy Inc.

Provident Energy Pipeline Inc.

Renaissance Energy Ltd.

SCL Pipeline Inc.

Shell Canada Products Limited

Sun-Canadian Pipe Line Company

Taurus Exploration Canada Ltd.

Yukon Pipelines Limited

Commodity Pipelines

Abitibi-Consolidated Company of Canada E.B. Eddy Forest Products Ltd. Fraser Papers Inc. (Canada) Genesis Pipeline Canada Ltd. Penn West Petroleum Ltd. Souris Valley Pipeline Limited

Electric Power Companies

(*Indicates the company's authorizations expired or were revoked during 2004.)

Abitibi-Consolidated Inc. Advantage Energy, Inc.

ALLETE, Inc. d/b/a Minnesota Power

Aquila Networks Canada (British Columbia) Ltd.

ATCO Power Canada Ltd. and Alberta Power (2000) Ltd.

Avista Energy, Inc.

Black Oak Capital, LLC.

*Bonneville Power Administration

BP Canada Energy Company Brascan Energy Marketing Inc.

British Columbia Hydro and Power Authority

Canadian Transit Company Candela Energy Corporation

Cargill Energy Trading Canada, Inc.

Chandler Energy Inc.

Cincinnati Gas & Electric Company, The

Citadel Financial Products S.a.r.l.

CMS Energy Resource Management Company

Columbia Power Corporation Conectiv Energy Supply Inc.

Constellation Energy Commodities Group, Inc.

Consumers Energy Company Coral Energy Canada Inc.

Detroit and Windsor Subway Company

Detroit Edison Company, The

Direct Commodities Trading (DCT) Inc.

Direct Energy Marketing Inc. DTE Energy Trading, Inc.

Duke Energy Marketing Canada Corp.

Duke Energy Marketing Canada Ltd.

Dynegy Power Marketing, Inc.

Edison Mission Marketing & Trading, Inc.

Emera Energy Inc.

EnCana Energy Services Inc.

Engage Energy Canada, L.P.

Engage Energy US, L.P.

Enmax Energy Marketing Inc.

EPCOR Merchant and Capital Inc.

Exelon Generation Company, LLC

FortisBC Inc.

FortisOntario Inc.

Fraser Paper Inc. (Canada)

Hydro One Networks Inc.

Hydro-Québec

Independent Electricity Market Operator

Inland Pacific Energy Services Ltd.

MAG Energy Solutions Inc.

Manitoba Hydro-Electric Board

Marketing D'Énergie HQ Inc.

Merrill Lynch Commodities Canada, ULC

Merrill Lynch Commodities, Inc.

Mirant Americas Energy Marketing, L.P.

Montenay Inc.

MontWegan International Energia Resorce Inc.

Morgan Stanley Capital Group Inc.

New Brunswick Power Generation Corporation

New York Power Authority

Nexen Marketing

Northern States Power Company

NorthPoint Energy Solutions Inc.

Nova Scotia Power Inc.

NRG Power Marketing, Inc. OGE Energy Resources, Inc.

Ontario Power Generation Inc.

Ontario Power Generation Inc./Ontario Power

Interconnected Markets Inc.

PG&E Energy Trading - Power L.P.

Powerex Corp.

PPL EnergyPlus, LLC

Public Service Company of Colorado

Rainbow Energy Marketing Corporation Reliant Energy Services Canada, Ltd.

Sempra Energy Trading Corp.

SESCO Enterprises Canada Ltd.

Sonat Power Marketing Inc. and Sonat Power
Marketing L.P.

Split Rock Energy LLC

St Clair Tunnel Company
Teck Cominco Metals Ltd.

Tractebel Energy Marketing Inc.

TransAlta Energy Marketing Corp. and TransAlta
Energy Marketing (U.S.) Inc.

TransCanada Energy Ltd.
TransCanada Power Marketing Inc.
UBS AG, London Branch
USGen New England Inc.
Williams Energy Marketing & Trading Canada, Inc.
WPS Canada Generation, Inc.
WPS Energy Services, Inc.



DOCUMENTS

Information Bulletins

The Board publishes Information Bulletins on the subjects listed below:

- The Public Hearing Process
- How to Participate in a Public Hearing
- Traffic, Tolls and Tariffs
- Electricity
- Protection of the Environment
- Pipeline Tolls and Tariffs: A Compendium of Terms
- Pipeline Safety

The Board also publishes the following brochures and booklets:

- Living and Working Near Pipelines Landowner Guide, 2002
- Excavation and Construction Near Pipelines, January 2002
- A Proposed Pipeline or Power Line Project: What you need to know, 2004

Information Series

The Board publishes the following Information Series:

- Answers to your Questions
- Library and Information Services
- Frontier Information Office
- Pipeline Regulation in Canada: A Guide for Landowners and the Public, June 2003
- Regulation of Commodity Pipelines

Videos

In the Public Interest is a general video about the roles and responsibilities of the NEB.

The Public Hearing Process is an educational video about the hearing process.

MAJOR DOCUMENTS PUBLISHED IN 2004

International Power Lines

Sumas Energy 2, Inc.

Application to construct and operate an international power line denied.

EH-1-2000

Reasons for Decision, March 2004

Tolls and Tariffs

TransCanada PipeLines Limited 2004 Mainline Tolls & Tariff Application, RH-2-2004 Phase I Reasons for Decision, September 2004

Westcoast Energy Inc. Toll Settlement 2004 and 2005, RH-1-2004 Reasons for Decision, August 2004

TransCanada PipeLines Limited
Application for approval to establish a new receipt
and delivery point, the North Bay Junction, and
for the corresponding tolls for services to and
from the point, RH-3-2004

Reasons for Decision, December 2004

Electricity

Teck Cominco Metals Ltd.
Electricity Export Permits EPE-243, EPE-244, EPE-245
Letter Decision, 19 February 2004

New York Power Authority Electricity Export Permits EPE-246, EPE-247 Letter Decision, 26 February 2004

SESCO Enterprises Canada Ltd. Electricity Export Permits EPE-248, EPE-249 Letter Decision, 7 May 2004

WPS Energy Services, Inc. Electricity Export Permit EPE-250 Letter Decision, 7 June 2004

Black Oak Capital, LLC. Electricity Export Permits EPE-251, EPE-252 Letter Decision, 4 June 2004 Citadel Financial Products S.a.r.l. Electricity Export Permits EPE-253, EPE-254 Letter Decision, 30 June 2004

MAG Energy Solutions Inc. Electricity Export Permits EPE-255, EPE-256 Letter Decision, 6 July 2004

The Cincinnati Gas & Electric Company
Electricity Export Permits EPE-257, EPE-258
Letter Decision, 24 August 2004

Manitoba Hydro-Electric Board Electricity Export Permit EPE-259 Letter Decision, 3 November 2004

ALLETE, Inc. d/b/a Minnesota Power Electricity Export Permits EPE-260, EPE-261 Letter Decision, 14 September 2004

Rainbow Energy Marketing Corporation Electricity Export Permits EPE-262, EPE-263 Letter Decision, 23 November 2004

Other

National Energy Board Annual Report Pursuant to the Access to Information Act and the Privacy Act 1 April 2003 – 31 March 2004 (June 2004)

National Energy Board 2004–2005 Estimates – Part III – Reports on Plans and Priorities (July 2004)

National Energy Board 2003 Annual Report to Parliament (March 2004)

National Energy Board Performance Report for the period ending March 31, 2004 (August 2004)

Regulatory Agenda, 12 Issues, 31 January 2004 to 31 December 2004

2004 Industry Survey: Final Report/ prepared for the National Energy Board: prepared by Environics Research Group (May 2004)

2004 Landowner Survey: Final Report / prepared for the National Energy Board: prepared by Environics Research Group (May 2004)

The British Columbia Natural Gas Market: an Overview and Assessment (April 2004)

- Canada's Conventional Natural Gas Resources: a Status Report (April 2004)
- Canada's Oil Sands: Opportunities and Challenges to 2015 (May 2004)
- A Compendium of Electric Reliability Frameworks across Canada (June 2004)
- Focus on Safety A Comparative Analysis of Pipeline Safety Performance, 2000-2002 (January 2004)
- Looking Ahead to 2010: Natural Gas Markets in Transition (August 2004)

- Natural Gas Prices in the Maritimes (March 2004)
- Short-term Canadian Natural Gas Deliverability 2004–2006 (November 2004)
- Terminology in use at the National Energy Board: English-French
- NEB Workshop Proceedings: December 2-4, 2003
- Pipeline Incident Report: Natural Gas Pipeline Rupture near Fort St. John, BC, 15 May 2002 (June 2004)

LEGAL PROCEEDINGS

Appeals

1. TransCanada PipeLines Limited (TCPL) - Application to Federal Court of Appeal of Board Decision RH-R-1-2002 - Federal Court of Appeal

On 21 March 2003, TCPL applied to the Federal Court of Appeal for leave to appeal the Board's RH-R-1-2002 Decision issued on 20 February 2003. In this Decision the NEB dismissed TCPL's September 2002 request for a review and variance of the Board's June 2002 RH-4-2001 Decision on the company's fair return application. Leave to appeal was granted and the matter was heard by the Court from 16 February to 19 February 2004.

Decision: On 6 April 2004 the Federal Court of Appeal dismissed TCPL's appeal.

2. Natural Gas Steering Committee (NGSC) – Application for Leave to Appeal the 2003 NEB Decision Relating to Westcoast Energy Inc.'s (WEI) Final 2003 Tolls - Federal Court of Appeal

On 24 December 2003, the NGSC applied to the Federal Court of Appeal for leave to appeal the Board's 27 November 2003 decision regarding an application from WEI for approval of final tolls for 2003. The NGSC asked the Federal Court of Appeal for a stay of the application pending the determination of the review application set out in 5 below.

Decision: A Motion of Abandonment was filed with the Federal Court of Appeal on 12 July 2004.

3. Sumas Energy 2, Inc. (SE2) – Application for Leave to Appeal Board Decision EH-1-2000 - Federal Court of Appeal

On 2 April 2004, SE2 applied to the Federal Court of Appeal for leave to appeal the Board's 4 March 2004 Decision in which it denied an application from SE2 to construct the Canadian portion of an international power line. The line would originate at the Canada/United States international boundary near Sumas, Washington and end at a BC Hydro substation in Abbotsford, British Columbia. On 26 July 2004, leave to appeal was granted and a Notice of Appeal was filed on 10 September 2004.

Decision: The matter has not yet been set down for hearing by the Federal Court of Appeal.



4. City of Hamilton - Judicial Review - Trans Northern Pipeline Inc. (TNPI) - Pipeline Replacement and Lowering in Hamilton, Ontario - Decision OHW-1-2003 - Federal Court

On 18 August 2003, the City of Hamilton filed a Notice of Application for Judicial Review with the Federal Court. The Notice sought, among other things, a declaration that the *Canadian Environment Assessment Act* (CEA Act) does not apply to the TNPI application and that no environmental screening is or was required to be carried out by the Board under the CEA Act in respect of the application.

Decision: A Discontinuance of Action was filed with the Federal Court on 1 March 2004.

5. Natural Gas Steering Committee (NGSC) – Application to Review the Board's Decision Relating to Westcoast Energy Inc.'s (WEI) Final 2003 Tolls

On 26 February 2004, the Board granted a request from NGSC to review a previous WEI tolls decision. The issues that the Board decided to review were:

- Whether the Board erred in not finding that the 2003 overhead during construction adjustment resulted from reassessments within the meaning of the 1997-2001 Settlement; and
- Whether the Board did not consider and determine NGSC's request for a review of the 1997-2001 Settlement Toll Orders as well as the 15 April 1999 Board decision.

At issue was whether WEI's decision to expense ODC costs, rather than treat them as capital costs, triggered a non-routine adjustment that would result in cost savings being passed on to certain shippers known as "Option A" shippers. Originally WEI treated ODC costs as capital costs. Subsequently WEI decided to expense these costs because the Canadian Customs and Revenue Agency (CCRA) changed its policy to allow this. WEI filed amended tax returns and received

from CCRA Notices of Reassessment accepting WEI's changes. The Board's original decision was that these costs were not non-routine adjustments and that related cost savings were not passed on to Option A shippers.

Decision: The Board concluded that the plain and literal meaning of the word reassessments included reassessments arising from CCRA Notices of Reassessment following WEI amended tax returns. The Board found that any ODC adjustments made by WEI that resulted in, or would in future result in, a reassessment were to be passed on the Option A shippers.

 Canadian Association of Petroleum Producers (CAPP) – Review of Reasons for Decision RH-2-2004, Phase I – TransCanada PipeLines Limited's (TCPL) 2004 Tolls

On 12 November 2004, CAPP applied for a review of the Board's RH-2-2004, Phase I Decision with respect to TCPL's 2004 Mainline Tolls. CAPP stated that the Board committed certain errors that raise a doubt as to the correctness of its decision. Specifically, the errors are:

- Approving tolls for Non-Renewable Firm Transportation Service to be determined on a biddable basis;
- Allowing TCPL to include all forecast long-term incentive compensation costs in its 2004 cost of service:
- Allowing TCPL to recover through tools certain regulatory and legal costs relating to review and appeal proceedings.

Decision: The Board is proceeding by way of a written process. Currently the Board has received submissions from parties as to whether a review should be held and has set 25 January 2005 as the deadline for CAPP to provide its written reply to those submissions.

7. Ms. Anne Martin – Application to Review the Board's Decision Relating to Reclamation of the Right-of-Way by Alliance Pipelines Limited (Alliance)

On 24 August 2004, Ms. Martin applied for a review of the Board's 8 July 2004 decision dealing with reclamation of the right-of-way on Ms. Martin's property by Alliance. Ms. Martin claimed that new circumstances and evidence raised a doubt as to the correctness of the Board's decision.

Decision: The Board is proceeding by way of a written process. Currently the Board has received submissions from both parties as to whether or not a review should be held, and if so, whether or not the decision should be varied.

 Mr. Ross McKinnon - Application to Review the Board's Decision Relating to Reclamation by TransCanada PipeLines Limited (TCPL)

On 30 August 2004, Mr. McKinnon applied for a review of the Board's 27 September 2002 decision dealing with drainage on Mr. McKinnon's property as part of the reclamation activities conducted by TCPL. Mr. McKinnon claimed that new circumstances and evidence raised a doubt as to the correctness of the Board's decision.

Decision: The Board is proceeding by way of a written process. Deadlines have been set by the Board for submissions by the parties. These deadlines expire on 7 March 2005.

9. Mr. Nikolaos Avgoustis and Ms. Christine Blouin (Landowners) applied to the Board asking it to review its decision, made under subsection 112(4) of the National Energy Board Act, to direct them to remove an above-ground pool and deck located on Trans-Northern Pipelines Inc.'s right of way on their property in Laval, Quebec.

Decision: On 18 May 2004, the Board concluded that the factors raised by the Landowners did not raise a doubt as to the correctness of the Board's original decision. Accordingly the application was dismissed.

10. Mr. Étienne Langlois asked the Board to review its decision, made under subsection 112(4) of the National Energy Board Act, to direct him to remove a shed located on Trans-Northern Pipelines Inc.'s right of way on his property in Deux-Montagnes, Quebec.

Decision: On 10 November 2004, the Board concluded that there was nothing raised by Mr. Langlois that raised a doubt as to the correctness of the Board's original decision. Accordingly the application was dismissed.



CO-OPERATION WITH OTHER ORGANIZATIONS

The NEB co-operates with other agencies to reduce regulatory overlap and provide more efficient regulatory services.

ALBERTA ENERGY AND UTILITIES BOARD (EUB)

The NEB has a Memorandum of Understanding (MOU) with the EUB on Pipeline Incident Response. The agreement provides for mutual assistance and a faster and more effective response by both Boards to pipeline incidents in Alberta.

The NEB and the EUB maintained their commitment to using the common reserves database for oil and gas reserves in Alberta. Both Boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for co-operation. Currently the Boards are working on a new assessment of gas resources in Alberta.

BRITISH COLUMBIA MINISTRY OF ENERGY AND MINES (BCMEM)

The NEB and BCMEM maintained their commitment to using a common reserves database for oil and gas reserves in British Columbia. Both Boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for co-operation. Currently the Boards are working on a new assessment of gas resources in British Columbia.

CANADA-NEWFOUNDLAND OFFSHORE PETROLEUM BOARD (CNOPB) AND CANADA-NOVA SCOTIA OFFSHORE PETROLEUM BOARD (CNSOPB)

The Chairs of the NEB, the CNOPB and the CNSOPB, together with executives from the Newfoundland, Labrador and Nova Scotia Departments of Energy and NRCan, form the Oil and Gas Administrators Advisory Council (OGAAC). The OGAAC membership discuss and decide on horizontal issues affecting their respective organizations to ensure convergence and collaboration on oil and gas exploration and production issues across Canada. The NEB, CNOPB and CNSOPB staff also work together to review, update and amend regulations and guidelines affecting oil and gas activities on Accord Lands.

NEB staff also provides technical expertise to NRCan, CNOPB and CNSOPB on technical matters of mutual interest, such as reservoir assessment, occupational safety and health, diving, drilling and production activities.

In 2002, the NEB and CNSOPB signed an MOU to co-ordinate the regulatory review of the EnCana Deep Panuke Offshore Gas Development project.

CANADIAN ASSOCIATION OF MEMBERS OF PUBLIC UTILITY TRIBUNALS (CAMPUT)

CAMPUT is a non-profit organization of federal, provincial and territorial boards and commissions which are responsible for the regulation of the electric, water, gas and pipeline utilities in Canada. Members sit on the executive committee of the association, promoting the education and training of members and staff of public utility tribunals. The NEB also provides staff support to CAMPUT in the form of information provision and assistance in conference organization. During 2004, the NEB participated in the CAMPUT annual meeting in Halifax, NS and the Regional Technical Conference on Tolls held in Banff, AB.

CANADIAN ENVIRONMENTAL ASSESSMENT AGENCY (CEAA)

NEB staff is actively engaged with CEAA matters, participating in CEAA's Senior Management Committee and acting as an observer on the Regulatory Advisory Committee. This involvement ensures effective co-ordination of regulatory responsibilities relating to environmental assessments.

CO-OPERATION ON THE ENVIRONMENTAL IMPACT ASSESSMENT AND REGULATORY REVIEW OF A NORTHERN GAS PIPELINE PROJECT THROUGH THE NORTHWEST TERRITORIES

In 2002, the NEB, in collaboration with the boards and agencies responsible for environmental impact assessment and regulatory review of a major natural gas pipeline through the Northwest Territories, issued a Co-operation Plan. This plan describes how the agencies propose to co-ordinate their activities to ensure an efficient, flexible and timely process that reduces duplication and enhances public and northern participation in the review of a major pipeline application. The NEB's partners in the Plan include the Mackenzie Valley Land and Water Board, the

Sahtu and Gwich'in Land and Water Boards, the NWT Water Board, the Mackenzie Valley Environmental Impact Review Board, the Environmental Impact Screening Committee and the Environmental Impact Review Board for the Inuvialuit Settlement Region, the Inuvialuit Game Council, the Inuvialuit Land Administration, the Canadian Environmental Assessment Agency, the Department of Indian Affairs and Northern Development, and observers from the Deh Cho First Nation, the Government of the Northwest Territories, and the Government of Yukon.

HUMAN RESOURCES AND SKILLS DEVELOPMENT CANADA (HRSDC)

The NEB has an MOU with HRSDC to administer the Canada Labour Code for NEB-regulated facilities and activities and to co-ordinate these safety responsibilities under the COGO Act and the NEB Act. The NEB also participated in the HRSDC client satisfaction survey.

NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC)

Board Members regularly participate in meetings of the U.S. NARUC, particularly with respect to developments in U.S. gas markets that may affect cross-border trade in natural gas.

NATURAL RESOURCES CANADA (NRCAN)

In 1996, the NEB signed an MOU with NRCan to reduce duplication and increase co-operation between the agencies. This MOU covers items such as data collection, the enhancement of energy models and special studies. The MOU has expired and renewal is being addressed. There is also a MOU for the NEB to administer responsibilities under COGO Act and CPR Act, signed in 1992.

PIPELINE TECHNICAL REGULATORY AUTHORITIES OF CANADA COUNCIL (PTRACC)

The NEB chairs a staff committee of federal and provincial technical regulators. PTRACC meets regularly throughout the year to discuss pipeline safety and environmental initiatives.

TRANSPORTATION SAFETY BOARD OF CANADA (TSB)

While the NEB has exclusive responsibility for regulating the safety of oil and gas pipelines under federal jurisdiction, it shares the responsibility for investigating pipeline incidents with the TSB. The roles and responsibilities of each body with regard to pipeline accident investigations are outlined in a MOU between the two boards.

U.S. FEDERAL ENERGY REGULATORY COMMISSION (FERC) AND COMISIÓN REGULADORA DE ENERGÍA (CRE) OF MEXICO

NEB, FERC and CRE have a tri-lateral agreement to share perspectives on regulatory approaches and to eliminate inconsistencies in those approaches.

NEB and FERC have a bi-lateral agreement to maintain a regular dialogue on their respective regulatory experiences and to exchange information available in the public domain. The purpose of their agreement is to keep one another informed about current and upcoming issues which may affect both organizations, and to mutually benefit from knowledge about best regulatory practices.

The NEB and CRE maintain an ongoing informal relationship, sharing regulatory experience and information on North American energy markets. Both organizations are committed to continuing and strengthening this relationship, which includes interagency staff visits.

YUKON TERRITORY DEPARTMENT OF ECONOMIC DEVELOPMENT (YDED)

The NEB continues to work with Yukon officials to facilitate the transfer of oil and gas regulatory responsibilities in accordance with the Yukon Accord Implementation Agreement. The Board provides expert technical advice to the YDED. The Services Agreement between the Government of Yukon and the NEB was signed 6 April 2004.

LIST OF APPENDICES

The following Statistical Reports are published separately as Appendices to the Annual Report. Electronic copies can be found on the Board's Internet site (www.neb-one.gc.ca) and printed versions are available from the Publications Office by calling (403) 299-3562 or 1-800-899-1265, or sending a facsimile to (403) 292-5503 or 1-877-288-8803.

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- A1 Crude Oil and Equivalent Supply and Disposition
- A2 Estimated Established Reserves of Crude Oil and Bitumen as of 31 December 2003
- A3 Natural Gas Supply and Disposition
- A4 Estimated Established Reserves of Marketable Natural Gas as of 31 December 2003
- A5 Natural Gas Liquids Supply and Disposition
- A6 Geophysical Activity
- A7 Exploration and Development Expenditures
- A8 Sales of Exploration Rights in Western Canada
- A9 Sales of Exploration Rights in Frontier Regions
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- B1 Certificates Issued During 2004 Approving Oil Pipeline Facilities Including Pipeline Construction Exceeding 40 Kilometres in Length
- B2 Orders Issued During 2004 Approving Oil Pipeline Facilities Including Pipeline Construction Not Exceeding 40 Kilometres in Length
- B3 Exports of Canadian Crude Oil and Equivalent 2003 and 2004
- B4 Exports of Canadian Crude Oil and Equivalent 2000 to 2004
- B5 Exports of Petroleum Products by Month 2004
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- C2 Orders Issued During 2004 Approving the Construction of Gas Pipeline Facilities Not Exceeding 40 Kilometres in Length
- C3 Licences and Long-Term Orders to Export Natural Gas as of 31 December 2004
- C4 Licences and Long-Term Orders to Import Natural Gas as of 31 December 2004
- C5 Natural Gas Exports by Export Point 2000 to 2004
- C6 Total Net Exports of Propane and Butanes 2003 and 2004

Appendix D

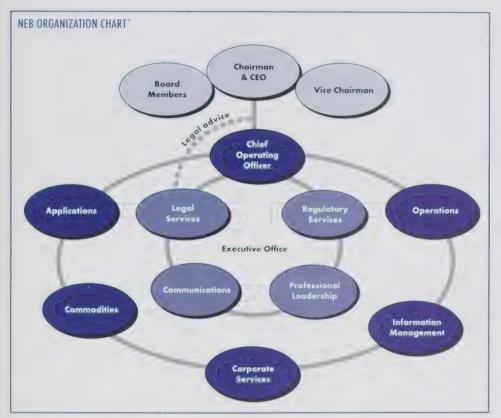
- D1 Financial Information Group 1 Oil Pipeline Companies with Multi-Year Incentive Toll Agreements
- D2 Financial Information Group 1 Oil Pipeline Companies with Tolls based on Cost of Service
- D3 Financial Information Group 1 Gas Pipeline Companies

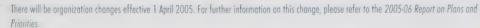
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- E1 Certificates and Permits Issued During 2004 for International Power Lines
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- E7 Electricity Trade Between Canada and the United States 2004 (by Province)
- E8 Electricity Trade between the United States and Canada 2004 (by American Region/ State)

NEB ORGANIZATION

The NEB is structured into five business units, reflecting major areas of responsibility: Applications, Operations, Commodities, Information Management and Corporate Services. In addition, the Executive Office includes four other teams providing specialized services: Legal Services¹¹, Communications, Professional Leadership and Regulatory Services.





^{11.} Legal Services is accountable to the Chairman and Board Members for the provision of legal advice. It is accountable to the Chief Operating Officer for administrative matters.

SENIOR BOARD STAFF

Jim Donihee, Chief Operating Officer
Judith Hanebury, General Counsel
Michel Mantha, Secretary of the Board
Sandy Harrison, Business Leader, Applications
John McCarthy, Business Leader, Commodities
Valerie Katarey, Business Leader, Corporate Services
Byron Goodall, Business Leader, Information
Management
Gregory Lever, Business Leader, Operations
Bonnie Gray, Project Leader, Northern Preparedness
Glenn Booth, Professional Leader, Economics
Alan Murray, Professional Leader, Engineering

Robert Steedman, Professional Leader, Environment

BUSINESS UNIT RESPONSIBILITIES

Applications

The Applications Business Unit is responsible for processing and assessing most regulatory applications submitted under the NEB Act. These fall primarily under Parts III and IV of the NEB Act, corresponding to facilities and tolls and tariffs applications and for the construction and operation of international and interprovincial electric power lines. It is also responsible for other matters such as the financial surveillance and financial audits of companies under the Board's jurisdiction and addressing landowner concerns.

Commodities

The Commodities Business Unit is responsible for energy industry and marketplace surveillance, including the outlook for the demand and supply of energy commodities in Canada, updating guidelines, and regulations relating to energy exports as prescribed by Part VI of the NEB Act. It is also responsible for assessing and processing applications for oil, natural gas and electricity exports.

Operations

The Operations Business Unit is accountable for safety and environmental matters pertaining to facilities under the NEB Act, the COGO Act and the CPR Act. It conducts safety and environmental inspections and audits, investigates incidents, monitors emergency response procedures, regulates the exploration, development and production of hydrocarbon resources in non-accord frontier lands, and develops regulations and guidelines with respect to the above.

Information Management

The Information Management Business Unit is responsible for developing and implementing an information management strategy for the Board and disseminating the information required by internal and external stakeholders. Its responsibilities include library services, corporate records management, mail services, access to information, document production services, and Board-wide computer services.

Corporate Services

The Corporate Services Business Unit provides those services necessary to assist the Board in its management of human, materiel and financial resources. Its responsibilities include corporate policy and planning activities, materiel and facilities management, staffing, training, compensation and benefits, procurement, inventory control, physical security, and union/management activities.

Executive Office

The Executive Office is responsible for the Board's overall capability and readiness to meet strategic and operational requirements including legal advice for both regulatory and management purposes, maintaining and enhancing technical expertise within the Board in the economic, environmental and engineering fields, internal and external communications, and hearing administration and regulatory support.

LIST OF ABBREVIATIONS

ADR appropriate dispute resolution

Alliance Pipeline Ltd.

AVC assurance of voluntary compliance

BC Hydro British Columbia Hydro and Power Authority

Board or NEB National Energy Board

CAPP Canadian Association of Petroleum Producers

CAMPUT Canadian Association of Members of Public Utility

Tribunals

CEAA Canadian Environmental Assessment Agency

CEA Act Canadian Environmental Assessment Act

COGO Act Canadian Oil and Gas Operations Act

Cooperation Plan Cooperation Plan for the Environmental Impact Assessment

and Regulatory Review of a Northern Gas Pipeline Project

through the Northwest Territories

CRE Comisión Reguladora de Energía

CSA Canadian Standards Association

EACSR External Advisory Committee on Smart Regulation

e-filing Electronic Regulatory Filing

EMA Energy Market Assessment

Enbridge Pipelines Inc.

ESIMS Environmental and safety information management

system

ESRF Environmental Studies Research Funds

FERC	Federal Energy Regulatory Commission	OPR-99	Onshore Pipeline Regulations, 1999
GDP	Gross Domestic Product	PADD	Petroleum Administration for Defense District
IPL	international power line	PPR	Processing Plant Regulations
Line 9	Enbridge's crude oil pipeline from Montreal to Sarnia	RTO	regional transmission organization
LNG	liquefied natural gas	Sumas or SE2	Sumas Energy 2 Inc.
MOU	Memorandum of Understanding	TransCanada	TransCanada PipeLines Limited
NEB or Board	National Energy Board	TSB	Transportation Safety Board of
NEB Act	National Energy Board Act		Canada
NGLs	natural gas liquids	WCSB	Western Canada Sedimentary Basin
NYMEX	New York Mercantile Exchange	Westcoast	Westcoast Energy Inc.
OPEC	Organization of Petroleum Exporting Countries	WTI	West Texas Intermediate

The Board uses the International System of Units. The energy content of a 30-litre tank of gasoline is approximately one gigajoule. A petajoule is one million gigajoules. On average, Canada consumes about one petajoule of energy every 50 minutes for all uses (heat, light and transportation).

The following conversion table is provided for the convenience of readers who may be more familiar with the Imperial System.

APPROXIMATE CONVERSION FACTORS

metre = 3.28 feet

kilometre = 0.62 mile

hectare = 2.47 acres

cubic metre of oil = 6.3 barrels

cubic metre of natural gas = 35.3 cubic feet

gigajoule = 0.95 thousand cubic feet of natural gas at

1 000 Btu per cubic foot or 0.165 barrels of

oil, or 0.28 megawatt hours of electricity

gigajoule = 10° joules

petajoule = 10¹⁵ joules

gigawatt hour = 106 kilowatt hours

terawatt hour = 10° kilowatt hours













National Energy Board

Office national de l'énergie

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ANNUAL REPORT

TO PARLIAMENT



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Cover photo:

Mackenzie River near Fort Good Hope, NWT.

National Energy Board



Office national de l'énergie

Office of the Chairman

Bureau du Président

20 March 2006

The Honourable Gary Lunn, P.C., M.P. Minister of Natural Resources 580 Booth Street, 21st Floor Ottawa, Ontario K1A 0E4

Dear Minister:

Annual Report 2005

I am pleased to submit the Annual Report of the National Energy Board for the year ending 31 December 2005, in accordance with the provisions of Section 133 of the *National Energy Board Act*, R.S.C. 1985, c. N-7.

Yours truly,

Kenneth W. Vollman

Chairman



Telephone/Téléphone: 1-800-899-1265 Facsimile/Télécopieur: 1-877-288-8803

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METRIC CONVERSION TABLE

CHAIRMAN'S LETTER

OUR PURPOSE

We promote safety and security, environmental protection, and economic efficiency in the Canadian public interest within the mandate set by Parliament in the regulation of pipelines, energy development and trade

OUR VISION

To be a respected leader in energy regulation that protects and enables in the Canadian public interest.

OUR GOALS

NEB-regulated facilities and activities are safe and secure, and are perceived to be so.

NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected.

Canadians derive the benefits of economic efficiency.

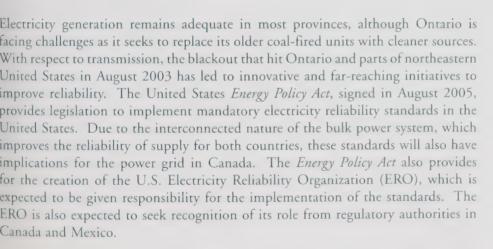
The NEB fulfills its mandate with the benefit of effective public engagement.

The NEB fulfills its mandate with the benefit of effective leadership and quality management of affected processes.

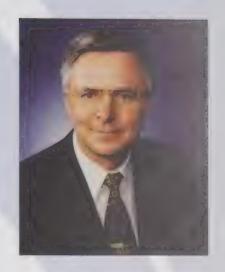
CHAIRMAN'S LETTER

n 2005, energy prices reached unprecedented highs. The impact of significant crude oil demand growth, limited spare oil production and refining capacity, and the hurricanes in the United States Gulf Coast saw oil prices rise to US\$71 per barrel and average well above \$50 for the year. Similarly, natural gas prices more than doubled in many Canadian and U.S. markets, driven by rising crude oil prices, hurricane-related supply disruptions, and increased gas-fired electricity demand caused by hot summer weather. Given the long-term nature of some of these factors, a new era of tight and volatile energy markets is expected.

Canadian energy supply is responding to the changes in the global market. Driven by higher crude oil and natural gas prices, in 2005 producers drilled a record 25 000 wells. Although natural gas production from conventional reserves in the Western Canada Sedimentary Basin has peaked, approximately 3 000 wells targeting coal bed methane (natural gas from coal) were drilled, reflecting a growing interest in developing non-conventional resources. High natural gas prices have also supported interest in developing supplies from Canada's North. Approximately 5 000 oil wells were drilled in 2005, including wells related to Alberta oil sands activity. Activity related to Alberta's oil sands and offshore eastern Canada is expected to lead to increases in crude oil supply.



The year 2005 saw development of many new infrastructure proposals. These include proposals to deliver growing oil sands production to market, to connect Canada's frontier natural gas reserves and to strengthen electric power interties with the United States. Hearings on some of these proposals are expected to occur in 2006. In assessing those proposals that fall within its mandate, the NEB is charged with enabling the development of desirable infrastructure while protecting all relevant public interests.



In 2005, the Board continued its commitment to provide clear regulatory rules and efficient and effective processes. This allows projects found to be in the public interest to proceed in a timely manner and, on an ongoing basis, removing unnecessary regulatory costs. Highlights include:

- preparation for review of the Mackenzie Gas Project applications;
- the implementation of performance standards including regulatory targets and timeliness for some of the Board's regulatory functions, such as the release of hearing decisions; export/import authorizations, and non-hearing section 58 applications;
- preparation for a Liquefied Natural Gas (LNG) filing and hosting an LNG Safety Workshop in co-operation with the Nova Scotia Department of Energy; and
- the evaluation of the Board's regulatory functions in the north.

To further support its efforts towards efficient and effective regulatory processes, the Board is working cooperatively with other agencies to coordinate and streamline regulatory processes, develop guidelines for processing times, and reach out to public interest groups. Given the number of decision-making agencies with specific mandates for energy projects, co-ordination and streamlining remain a significant challenge.

Another challenge is the Board's obligation and role with respect to consultation with Aboriginal peoples on major energy infrastructure projects. In 2005, the NEB initiated a Northern Engagement Research Project to improve its public engagement approaches, including those with Aboriginal communities. The intent is to improve

responsiveness to the concerns of local communities, improve information sharing, and to enhance the value of stakeholder contributions.

In 2005, the NEB continued to monitor energy markets and, in light of the high and volatile energy prices, increased its efforts to publish information on the state of energy supplies, markets and prices in Canada. In 2005, the Board produced five Energy Market Assessments and released a report on the Canadian hydrocarbon transportation system that provided an assessment of how Canadian energy transportation systems are currently functioning.

Although many of the Board's efforts to improve its performance focused on interactions with outside parties, during 2005 the NEB invested significant effort to improve internal processes. Examples include creating an organizational culture that is more operationally focused, developing a Quality Management System, investing in leadership development for many Board staff, and continuing development and implementation of service standards. Attracting and retaining qualified and experienced people in an extremely competitive labour market in Calgary continues to be a significant challenge for the Board.

While there are many challenges before us, the Board is firmly committed to fulfilling its role in a manner that will help ensure that Canadians' future energy needs are met in a safe and secure manner while protecting the integrity of the environment and respecting the rights of affected citizens.

Them followers

OUR ROLE AND RESPONSIBILITIES

ABOUT THE NEB

The National Energy Board (NEB or the Board) is an independent federal agency established in 1959. It regulates several aspects of Canada's energy industry. Its purpose is to promote safety and security, environmental protection and economic efficiency in the Canadian public interest within the mandate set by Parliament for the regulation of pipelines, energy development and trade. The Board reports to Parliament through the Minister of Natural Resources.

The main functions of the NEB are established in the *National Energy Board Act* (NEB Act) and include regulating:

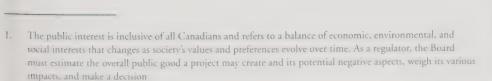
- the construction and operation of pipelines that cross international or provincial borders, as well as pipeline tolls and tariffs;
- international power lines and designated interprovincial power lines; and
- natural gas imports and exports, oil, natural gas liquids (NGLs) and electricity exports, and some oil and gas exploration on frontier² lands, particularly in Canada's North and certain offshore areas.

The NEB Act also requires that the Board monitor all aspects of energy supply, production, development and trade that fall within the jurisdiction of the federal government.

The NEB regulates approximately 45 000 kilometres of pipelines across Canada (Figures 1 and 2). These include large diameter high-pressure natural gas pipelines, crude oil and oil products pipelines, shorter small-diameter pipelines, and one carbon dioxide pipeline. In 2005, these pipelines transported over \$100 billion of crude oil, petroleum products, natural gas liquids and natural gas. In 2005, it is estimated that the cost of providing transportation services for these commodities was roughly \$4.5 billion.

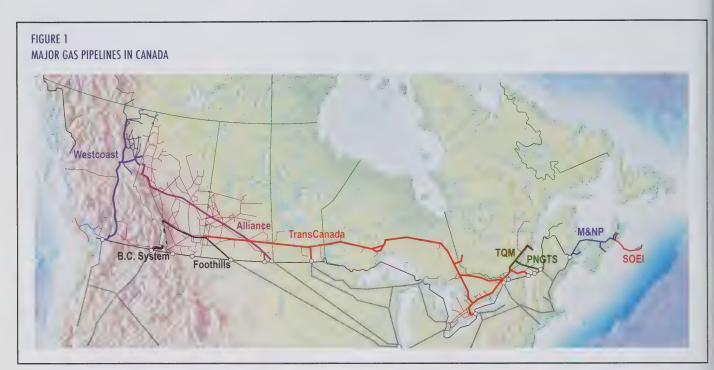
The Board has additional regulatory responsibilities under the Canada Oil and Gas Operations Act (COGO Act) and under certain provisions of the Canada Petroleum

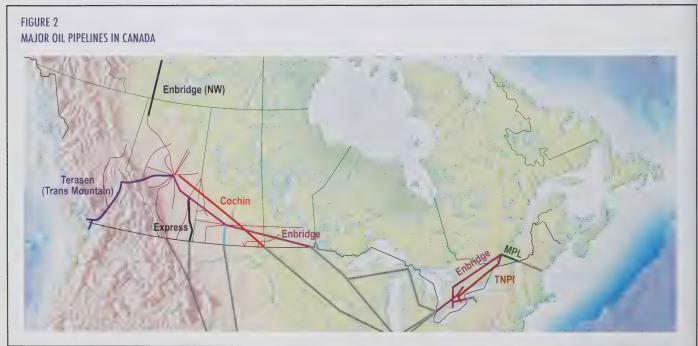
"The NEB's corporate
purpose is to promote
safety and security,
environmental protection
and economic efficiency
in the Canadian public
interest¹ within the
mandate set by Parliament
in the regulation of
pipelines, energy
development and trade."



^{2.} Those lands in the North and in offshore areas that are not subject to a federal/provincial shared management agreement







Resources Act (CPR Act) for oil and gas exploration and production on frontier lands and certain offshore areas (Figure 3).

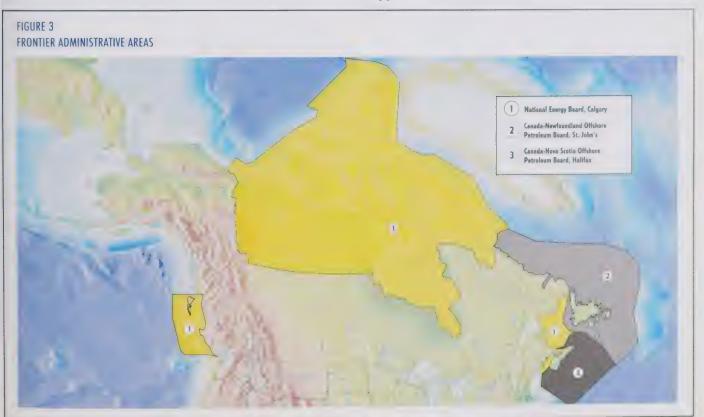
The Board also has environmental responsibilities under the Canadian Environmental Assessment Act (CEA Act) and the Mackenzie Valley Resource Management Act. In addition, certain Board inspectors are appointed Health and Safety Officers by the Minister of Labour to administer Part II of the *Canada Labour Code* as it applies to facilities and activities regulated by the Board.

In addition to its regulatory responsibilities, the NEB provides energy information and expert advice by collecting and analyzing information about Canadian energy markets. The NEB's mandate also includes providing expert technical advice to the Canada-Newfoundland Offshore Petroleum Board (C-NOPB), the Canada-Nova Scotia Offshore Petroleum Board (C-NSOPB), Natural Resources Canada (NRCan), and Indian and Northern Affairs Canada (INAC).

The NEB may, on its own initiative, hold inquiries and study specific energy matters and prepare reports for Parliament, the federal government and the general public. On request, the NEB provides advice to the Minister of Natural Resources Canada and other government ministers, departments and agencies.

The NEB is a court of record and has the powers of a superior court to compel attendance at hearings, examine witnesses under oath, inspect documents and enforce its orders. The NEB Act provides for up to nine permanent Board Members assisted by staff including financial and market analysts, environmental specialists, economists, engineers, geologists, geophysicists and lawyers. Public hearings are typically conducted by three Board Members, who constitute a quorum, with one acting as the Presiding Member. The Board's regulatory decisions and the reasons for them are issued as public documents.

More information on the background and operations of the NEB may be found at the Board's Internet site, www.neb-one.gc.ca. For a complete list of the legislation under which the NEB has named responsibility, see Supplement I.



REGULATORY ACTIVITY IN 2005

In 2005, the NEB considered applications for new pipeline facilities, a detailed route hearing, tolls and tariffs filings, activities on frontier lands, and requests for changes to short-term export and import orders. The Board continued to monitor, assess and enforce compliance within the regulated industry through a comprehensive program of inspections and audits. The NEB also prepared reports on current and future energy market developments in Canada. These activities are summarized below:

Certificates, Orders, Permits and Applications Approved in 2005

657 Certificates, Orders, Permits and Letter Approvals

Construction and Operation of Pipelines and Power Lines under Parts III and III.1 of the NEB Act

• 104 Orders and Permits

Pipeline Tolls and Tariffs under Part IV of the NEB Act

• 33 Orders

Exports and Imports of Natural Gas, Crude Oil, Natural Gas Liquids and Electricity under Part VI of the NEB Act

• 423 Orders and Permits

Exploration and Production Activity in Frontier Areas under the COGO Act

• 53 applications approved

Activity in Frontier Areas under the CPR Act

• 8 Significant Discovery Declarations

Proceedings

- 6 public hearings
- 22 public hearing days

• 1 Pre-Hearing Planning Conference for the Mackenzie Gas Project

Compliance Monitoring

- 18 inspections undertaken during construction
- 92 inspections of operating pipelines and facilities
- 1 management system audit

Landowner Complaint Resolution Program

• 20 landowner files considered

Publications Providing Energy Market Information

- Alberta's Ultimate Potential for Conventional Natural Gas (March 2005)
- Outlook for Electricity Markets 2005-2006 (June 2005)
- Canadian Hydrocarbon Transportation System: Transportation Assessment (August 2005)
- Short-term Outlook for Canadian Crude Oil to 2006 (September 2005)
- Short-term Canadian Natural Gas Deliverability 2005-2007 (October 2005)
- Short-term Outlook for Natural Gas and Natural Gas Liquids to 2006 (October 2005)

IMPROVING THE REGULATORY FRAMEWORK

In 2005, the NEB continued to pursue its regulatory strategy, which is based on goal-oriented regulation³, clear and predictable regulatory processes, and effective co-operation and partnership with government agencies and departments. These efforts support the principles of the Government of Canada's Smart Regulation strategy. The NEB participated in several initiatives related to the Smart Regulation strategy including:

- the Public Sector Council on Regulatory
 Management, which advances the best regulatory
 practices in the Canadian government through
 regular meetings and a learning network;
- making submissions to the Smart Regulation Report on Actions and Plans, which reports twice a year on the progress of Smart Regulation initiatives. Initiatives included in this report involve offshore and frontier regulatory reform, and recently included NEB work on regulations and the co-operation plan for the environmental impact assessment of a northern gas pipeline project; and
- the Environmental Sustainability Theme Table which is focused on developing a common approach to regulation to support a rich and sustainable natural environment for Canadians.

JUNE 2005 WORKSHOP

In June 2005, the NEB held its third workshop, "Collaborating for Regulatory Improvement". The workshop attracted over 350 participants representing more than 108 organizations including industry; municipal, provincial and federal agencies; consultants; and Aboriginal groups. The workshop was an opportunity for the NEB to share information and to engage stakeholders on regulatory initiatives and internal improvement initiatives,

environmental protection, and the management of safety, integrity, emergency and security.

At the workshop, participants continued to demonstrate support for the NEB's regulatory strategy including goal oriented regulations. Workshop proceedings can be found on the NEB Internet site at www.neb-one.gc.ca/Publications/NEBWorkshops/2005NEBWorkshopProceedings_e.pdf.

HEALTH, SAFETY AND ENVIRONMENT CASE

During 2005, the NEB introduced the "Health, Safety and Environment (HSE) Case" regulatory approach for the proposed *Submerged Pipeline Regulations*. The HSE Case regulatory approach is modeled on international offshore regulatory regimes. The regulatory approach is built on a framework of management systems, hazard identification, risk management and third party verification. The HSE Case itself is a set of summary documents prepared by a company that address this framework. The Board will continue to build on the progress made on the *Submerged Pipeline Regulations* in 2006.

REGULATORY ADDITIONS AND UPDATES

The NEB continued working with the Department of Justice on final details of the new Damage Prevention Regulations and the updated Canada Oil and Gas Diving Regulations in preparation for the regulations being published for comment in Part 1 of the Canada Gazette.

The NEB continued the development and maintenance of regulations regarding exploration and development activities under the COGO Act. The regulations, developed in cooperation with NRCan, the INAC, the C-NOPB, the C-NSOPB, the Nova Scotia Department of Energy and the Newfoundland Department of Natural Resources, ensure common regulatory approaches for activities in the offshore regions, the Northwest Territories and Nunavut.

^{3.} The NEB's goal-oriented regulations are a blend of prescriptive, performance based and goal-oriented regulations supported by standards and non-mandatory guidance notes. Goal-oriented regulations promote increased industry responsibility and flexibility in meeting NEB regulatory requirements.

NEB ELECTRICITY COST RECOVERY WORKSHOP

In March 2004, the Board initiated the Electricity Cost Recovery project as a result of the electricity industry expressing concern about the cost recovery process. The electricity industry members believed that the current methodology was not equitable, since exporters were the only group paying the NEB costs. These members also believed that the restructuring of the industry resulting in the separation of generation, transmission, distribution and marketing functions meant that it was even more important to have the costs more appropriately distributed. In 2004, the Board held a one-day workshop in Calgary to explore the issue further with industry participants. A second workshop was held on 2 June 2005 in Montreal at which time Board staff provided additional background information and presented some draft options and criteria for industry's input and feedback. A workshop summary can be found on the NEB Internet site at www.neb-one.gc.ca/ActsRegulations/NEBAct/ ElectricityCostRecovery/2004/index_e.htm.

As a result of the workshops and stakeholder consultation, the NEB developed a new electricity cost recovery concept. This concept, with further consultations, will provide the basis for drafting modifications to the *National Energ Board Cost Recovery Regulations*. In 2006, the Board holding an information session to present the electricit cost recovery concept. Further details are available if the Effective Leadership and Management section of the report.

INDUSTRY STANDARDS

The NEB continues to participate with industry government and stakeholder groups in several initiative to develop consensus-based standards, best practices and common approaches to safety, security and environmental issues. As part of this work, the NEB sits on several technical committees that develop and update the Canadian Standards Association (CSA) pipeline standards. The NEB is also a member of the Canadian Pipelin Environment Committee and the Canadian Association of Members of Public Utility Tribunals.

APPLICATION HIGHLIGHTS

n 2005, the NEB considered applications for new pipeline facilities, for changes to tolls and tariffs, activities on Canada's non-accord lands, for short-term exports orders for oil, NGLs and natural gas, and for export permits for electricity. The Board also held a detailed route hearing to finalize the route for a previously approved international power line. Board resources were also devoted to preparing for an expected hearing for the Mackenzie Gas Project and preparing for potential infrastructure requirements related to liquefied natural gas (LNG) imports.

"The NEB's vision is to be a respected leader in energy regulation that protects and enables in the canadian public interest."

PIPELINE FACILITIES

Mackenzie Gas Project Hearing Preparations

In October 2004, the NEB received five applications from Imperial Oil Resources Ventures Limited (IORVL), Mackenzie Valley Aboriginal Pipeline Limited Partnership, Imperial Oil Resources Limited, ConocoPhillips Canada (North) Limited, ExxonMobil Canada Properties and Shell Canada Limited for the construction and operation of the Mackenzie Gas Project in northern Canada. Project updates were subsequently filed in November and December 2005.

mperial Oil applied for approval to build a 192-kilometre (km) (119 miles) gas gathering system to collect the gas from three fields and deliver it to a processing acility near Inuvik. At the processing facility, NGLs would be separated out. The natural gas would enter the proposed 1 194 km (742 miles) pipeline and the liquids would enter a smaller, parallel pipeline of about 459 km (285 miles) that would connect to the Enbridge Pipelines (NW) Inc. pipeline at Norman Wells. The project includes Development Plan Applications for the Taglu, Parsons Lake and Niglintgak onshore natural gas fields, operated by Imperial Oil, ConocoPhillips and Shell Canada, respectively.

The 762 millimetre (mm) (30 inch) natural gas transmission pipeline is designed o transport an average of 34 million cubic metres (1.2 billion cubic feet) per day. The capital cost of the Mackenzie Gas Project is estimated at over \$7 billion. It is planned to be in operation by the end of 2011.

Throughout 2005, the Board held information sessions in many communities long the Mackenzie Valley and in other communities in the Northwest Territories and northern Alberta. These sessions provided participants with an opportunity to earn about the NEB's hearing process and to express their views. In June 2005, the 30 and also viewed the geographical and physical features of the proposed anchor fields and pipeline route by helicopter.

During the first half of 2005, the Board continued its examination of the pplications. On 7 July 2005, the Board asked IORVL to provide a date by which





it would inform the Board of its readiness for a public hearing. On 23 November 2005, IORVL informed the Board that it was ready to proceed to public hearings. In December 2005, the Board held a pre-hearing planning conference in Inuvik, Yellowknife, Fort Good Hope and Fort Simpson. In addition to participating in discussions, participants were able to provide written and phone-in comments. Following the planning conference, the Board released a draft schedule for its public hearing that started in Inuvik on 25 January 2006.

The NEB hearing process is coordinated with the Environmental Impact Review of the Mackenzie Gas Project by the Joint Review Panel, as contemplated in the "Cooperation Plan for the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline Project through the Northwest Territories", dated June 2002. An NEB Board Member was appointed as a member of the Joint Review Panel. Under Authorization MO-13-2004 the Board Member is authorized in accordance with the provisions of subsection 15(1) of the NEB Act to report and make recommendations to the NEB Panel in its consideration of the Mackenzie Gas Project.

Throughout 2005 the NEB continued to support the work of the Northern Gas Project Secretariat (NGPS). The NGPS is based in Yellowknife, with regional offices in Inuvik, Norman Wells and Fort Simpson. The NGPS provides the forum through which agencies responsible for the environmental and regulatory assessment of the Mackenzie Gas Project can develop cooperative and harmonized approaches, while respecting the need for the review processes to be conducted independently. The NGPS mandate includes supporting and coordinating the public hearing processes, involving all aspects related to public involvement. The work of the NGPS is overseen by an Executive Committee composed of the Sitting Chairs of the Joint Review Panel, the NEB Panel, the Mackenzie Valley Land and Water Board and the Northwest Territories Water Board. The Executive Committee is chaired by the NEB.

Kinder Morgan Canada (formerly Terasen Pipeline (Trans Mountain) Inc.)

In 2005, Kinder Morgan Canada (formerly Teraser Pipelines (Trans Mountain) Inc.) received approval from the NEB to increase the capacity of the Trans Mountain pipeline system from 35 000 m³/d to 41 000 m³/d. The project includes modifications of three existing pump stations and the construction of seven new stations of existing lands owned by Kinder Morgan Canada. It also includes modifications of pump internals at eight existing stations to improve efficiencies under the new operation conditions. On 21 December 2005, Terasen Pipeline (Trans Mountain) Inc. filed an application to vary the project design.

TOLLS AND TARIFFS

TransCanada Pipeline Limited

RH-2-2004 Phase II

The Board considered the cost of capital aspects o TransCanada's Mainline 2004 Tolls and Tariff Application during Phase II of the RH-2-2004 public hearing. In April 2005, the Board approved an increase in the TransCanad-Mainline's deemed common equity ratio from 33 ti 36 percent to be effective 1 January 2004. In the Phase I Decision the Board concluded that, overall, the busines risk to which the Mainline is exposed has increased sinc the last assessment of TransCanada's cost of capital in th RH-4-2001 Hearing as a result of increases in supply ris and competitive risk. Further, the Board concluded that an increase in TransCanada's deemed common equit ratio was warranted in order to ensure that the Mainlin continues to maintain its financial integrity and its abilit to attract capital on reasonable terms and conditions. A other aspects of the 2004 Tolls and Tariff Applicatio were heard during Phase I of the public hearing and the Board rendered its decision on that phase of the hearin in September 2004.

RH-R-1-2005

In November 2004, the Canadian Association (Petroleum Producers (CAPP) applied for a review of th

Board's RH-2-2004 Phase I Decision which was released in September 2004. The review was on the basis that the Board committed errors with respect to:

- i) Non-Renewable Firm Transportation (FT-NR);
- ii) long-term incentive compensation (LTIC); and
- iii) regulatory costs.

On 13 April 2005, CAPP withdrew its request for a review of LTIC costs. In May 2005, the Board released ts RH-R-1-2005 Decision. In the decision, the Board overturned its Phase I Decision authorizing FT-NR to be tolled on a biddable basis and instead approved the tolling of FT-NR service on the same basis as FT with a step-down. However, the Board was of the view that CAPP did not raise a doubt as to the correctness of the regulatory costs approved in the Phase I Decision.

RH-R-2-2005

In January 2005, Coral Energy Canada Inc. (Coral) and the Cogenerators Alliance (CA) applied for a review and variance of the Board's RH-2-2004 Phase I Decision on the grounds that the Board erred by inappropriately shifting the burden of proof onto intervenors and by failing to provide adequate reasons for its decisions. In May 2005, the Board released its RH-R-2-2005 Decision. The Board found that the burden of proof ground did not raise a doubt as to the correctness of the Phase I Decision. Further, the Board found that adequate reasons were given throughout the Phase I Decision. Therefore, the Coral and CA ground for review relating to the adequacy of reasons did not raise a doubt as to the correctness of the Phase I Decision.

Foothills Pipe Lines Ltd. and TransCanada B.C. System

In December 2005, the NEB approved Foothills Pipe Lines Ltd. (Foothills) final tolls to be made effective I January 2006. The approved tolls included an increase in Foothills deemed common equity ratio from 30 to 36 percent. The NEB also approved interim tolls for TransCanada B.C. System to be made interim effective 1 January 2006. The interim approved tolls also included an increase in the TransCanada B.C. System deemed common equity ratio from 30 to 36 percent. Prior to issuing a decision, the Board sought comments from shippers and interested parties and did not receive any comments.

Westcoast Energy Inc.

In August 2004, the NEB approved a settlement reached by Westcoast Energy Inc. (Westcoast) and its shippers that provided tolls for 2004 and a methodology for determining 2005 tolls. On 29 November 2004, the Board approved Westcoast's application for interim 2005 transmission tolls and approved final 2005 tolls on 15 April 2005. On 10 November 2005, the Board approved Westcoast's application for certain firm transportation service enhancements (including term differentiated firm service tolls and authorized overrun service across the system) and daily cross-corridor crediting for northern transportation service. The enhancements were intended to increase the value of firm service and encourage higher levels of contracting. The authorized overrun service and cross-corridor crediting were approved as two-year pilot projects.

Enbridge Pipelines Inc.

On 7 January 2005, Enbridge Pipelines Inc. (Enbridge) applied for approval to recover US\$10 million per year in its Canadian pipeline tolls for five years for the extension of service on the Spearhead Pipeline, which extends from Chicago, Illinois to Cushing, Oklahoma. Historically, the pipeline provided south to north service. Enbridge plans to reverse the flow of the pipeline in January 2006 to provide service to new markets south of Chicago.

On 8 February 2005, Enbridge filed another application to recover US\$10 million per year for five years in its Canadian pipeline tolls for the reversal of a pipeline to run in a north to south direction between Patoka, Illinois and Corsicana, Texas. The pipeline is owned by Mobil Pipe Line Company. The intent of the reversal was to provide Canadian producers with access to the U.S. Gulf Coast market starting the fourth quarter of 2005.

Both applications were considered in the RH-1-2005 proceeding and a public hearing was held from 7 to 12 April 2005. On 28 April 2005, the Board approved the applications. On 9 June 2005, the Board released its Reasons for Decision, which stated that the applications would result in the efficient use of the existing infrastructure and enable access to new markets in a timely manner to accommodate growth in oil sands supply.

On 25 May 2005, Flint Hills Resources appealed to the Federal Court the Board's decision. Supplement IV – Legal Proceedings 2005 provides details of this appeal.

Application for Priority Destination from Chevron Canada Limited, Chevron Standard Limited and Neste Canada Inc.

In January 2005 the NEB received applications from Chevron Canada Limited (Chevron), Chevron Standard Limited and Neste Canada Inc. for orders designating Chevron's refinery at Burnaby, British Columbia as a priority destination on the Kinder Morgan Canada (formerly Terasen Pipelines (Trans Mountain) Inc.) pipeline system for the unapportioned delivery of crude oil and iso-octane from Edmonton, Alberta. During 2005, the Board dealt with three notices of motion which resulted in the oral hearing being re-scheduled to 6 March 2006.

Financial Audits

The Board periodically audits the financial condition of NEB-regulated pipeline companies. Financial audits provide important information about a company's compliance with regulations, orders and decisions, as well as the extent to which a company operates with due regard for economy and efficiency. The Board also uses financial audits to decide whether cross-subsidies have been made at the expense of toll payers and to enhance its knowledge of the company and its operations. In this regard, the Board completed an audit of Westcoast in 2005.

The Board had three Findings and two Recommendations for which a corrective action plan was filed by Westcoast and approved by the Board on 10 November 2005. As part of its corrective action plan, Westcoast filed an

application for exemption from Schedules VI and VII of the *Gas Pipeline Uniform Accounting Regulations* under section 129(1.1) of the Act. This application was also approved on 10 November 2005.

The Board also initiated an audit of the TransCanada Pipeline System, with a focus on the mainline. The fieldwork was completed in December 2005. The audit report will be finalized in early 2006.

POWER LINE FACILITIES

New Brunswick Power Corporation

The NEB issued a certificate to New Brunswick Power Corporation (NB Power) in the fall of 2003 approving the construction and operation of a 95.5 km (59.7 miles), 345 kilovolt (kV), international power line from NB Power's existing transmission terminal at the Point Lepreau Generating Station to a point on the Maine-New Brunswick border, west of St. Stephen, New Brunswick.

In December 2004 and January 2005, NB Power applied to the Board for approval of plans showing the proposed detailed route of the international power line. The company sent notices to landowners and published notices in newspapers near the proposed route. Landowners had 30 days to file an objection with the Board.

In response to the written objections from two landowners, the Board held hearings in St. Stephen, New Brunswick on 9 May 2005. The landowners' objections included ATV access that could potentially damage blueberry lands, and adverse effects on wildlife. The Board approved the detailed route NB Power selected with conditions.

Sumas Energy 2 Inc.

In 2004, the Board denied an application by Sumas Energy 2 Inc. (SE2) to construct the Canadian portion of an international power line originating at the Canadian/United States international boundary near Sumas, Washington and running to Abbotsford, British Columbia. Following the decision, Sumas applied to the Federal Court of Appeal for leave to appeal. Leave was granted

and the matter was heard by the Court in November of this year. On 9 November 2005 the Federal Court of Appeal upheld the Board's decision and dismissed SE2's appeal.

Montana Alberta Tie Ltd.

In December 2005, Montana Alberta Tie Ltd. (MATL), a consortium consisting of Rocky Mountain Power, Lectrix Ltd. and Scott Land and Permitting, filed an application for a permit with the NEB for a 288 km (180-mile), 230-kV transmission line that would run from Lethbridge, Alberta to Great Falls, Montana, and eventually connect into the northwest grid.

An open season was conducted by MATL early in 2005 and produced 13 bids from four companies. Capacity has been contracted for a 15-year period. Last July, FERC accepted the results of the open season saying it was "nondiscriminatory, fair and transparent". The majority of subscribers in the MATL open season are wind project promoters seeking to secure transmission from projects being proposed for construction in northern Montana.

Sea Breeze Power Corp. and its subsidiary

In British Columbia, Sea Breeze Power Corp. (Sea Breeze) and its subsidiary have proposed to build a 22-milelong, 540 MW, high-voltage, direct current transmission line with converter stations that would run underneath the Strait of Juan de Fuca between Washington State and British Columbia. This international power line would connect the Bonneville Power Administration substation located in Port Angeles, Washington to the substation in Victoria, British Columbia, which is owned by BC Hydro and operated by the British Columbia Transmission Corporation. Sea Breeze received approval from FERC (14 September 2005) for the Victoria to Port Angeles line and filed an application with the NEB in December 2005.

ACTIVITY IN FRONTIER REGIONS

In 2005, the NEB continued to assess project applications for frontier regions and inspect approved activities and facilities. Activity in frontier regions was mostly related to developing producing fields and completing exploratory drilling.

The majority of the exploratory drilling and geophysical programs were in the Central Mackenzie and Mackenzie Delta regions. Geological and geophysical activity in the frontier regions was on par with 2004, though drilling activities continued to decrease slightly. Production continued from the Ikhil gas field, the Norman Wells oil field, the three producing gas fields in the Fort Liard region and the combined oil and gas field in the Cameron Hills region.

During 2005, the Board made eight Significant Discovery Declarations in the southern Northwest Territories pursuant to the NEB and CPR Acts.

Offshore drilling activity in the Beaufort Sea region recommenced in 2005 after 13 years of inactivity. In December 2005, Devon Canada Corporation (Devon) submitted and received approval for its proposed drilling program and subsequently spudded the Pakota C60 well, the first of several it plans to drill at exploration license 420. Devon was required to submit a Comprehensive Study Report for the project and the NEB was the lead responsible authority for the preparation and review of the report.

Regulatory Cooperation in the North

In 2004, the Inuvialuit Final Agreement (IFA) was amended to allow the Environmental Impact Screening Committee to recommend terms and conditions to regulators for development approvals. In 2005, a workshop was held in Inuvik with interested Federal, Territorial and Inuvialuit stakeholders to discuss how to implement an efficient and effective environmental assessment review under the IFA in light of these changes.

Engaging Aboriginals in the North

In 2005 the NEB initiated research on the needs of northern communities with respect to the Board's future aboriginal engagement program. The recommendations and supporting research findings will contribute to the NEB's efforts to develop and implement an engagement program that is suited to affected northern communities. This process is independent of the Mackenzie Gas Project.

PREPARING FOR THE FUTURE

Liquefied Natural Gas Safety Workshop

On 6 January 2005, the Board, in co-operation with the Nova Scotia Department of Energy, hosted a one-day LNG Safety Workshop in Montreal, Quebec. The workshop provided a forum for various federal and provincial departments and agencies:

- to develop a common understanding of what regulators need to know when dealing with an LNG project in Canada; and
- to examine the safety and technical components related to constructing and operating LNG receiving terminals (including shipping, jetty, receiving lines, storage facilities, re-gasification facilities) and to identify gaps in the current regulatory environment.

Over 50 participants contributed to the success of the workshop (report available on the NEB's Internet site).

Following the workshop, a cross-jurisdictional working group was set up to identify provincial accountabilities for the various components of an LNG receiving terminal. The working group produced a compendium of all major regulatory approvals currently required by the respective levels of government for the design, siting and construction of an LNG receiving terminal. This document, entitled

"LNG Regulatory Requirements"⁴, outlines a current lis of the approvals required or which may be sought by a proponent and is subject to change should any particula jurisdiction make changes to its respective requirements The compendium is intended:

- for use by proponents developing Canadian LNG import facility proposals; federal, provincial and municipal governments examining those proposals, as well as the general public in understanding the necessary regulatory approvals for such facilities;
- to consider each component of an LNG facility;
- to describe the type of assessment required, the regulatory instruments to be issued or which are sought by a proponent and the corresponding legislative requirement;
- to identify the regulatory accountabilities, approvals and permits that are required or sought at different government levels for approval of an LNG project;
- to cover requirements of federal and provincial departments and agencies as well as municipal requirement; and
- to cover the provinces of British Columbia,
 Quebec, New Brunswick and Nova Scotia, each o
 which have one or more proposed LNG projects.

The NEB continues to monitor LNG developments a they may affect future regulatory activity at the Board with respect to interconnecting pipelines and import and export authorizations.

^{4.} Available at www.neb-one.gc.ca/energy/lng/lngindex_e.htm#LNGRegulatoryRequirements

ENERGY OVERVIEW

he NEB extensively monitors energy markets to analyze objectively energy commodities and inform Canadians about trends and issues. This section summarizes the Board's review of Canadian energy supply, consumption, production, prices and trade for the past five years, with focus on 2005.

ommodity prices. This trend was accentuated by Hurricanes Katrina and Rita, which occurred in late August and September and devastated U.S. Gulf Coast communities, infrastructure, and energy and industrial sector operations. The cowerful storms reduced oil and gas production and processing and electricity transmission from the Gulf of Mexico, intensifying volatility in energy commodity prices.

For Canadians, the impact of the rise in energy prices, which are priced globally in J.S. dollars, was moderated by the five percent appreciation of the Canadian dollar elative to the U.S. dollar in 2005.

The current high prices of energy have led to an increase in consumer energy bills and could potentially lead to a decrease in energy demand. In the short-term the lemand response has been limited. However, the Board continues to monitor Canadian energy markets and the response of energy users to higher prices.

influenced by strong world oil demand, lack of global spare oil production capacity and security of supply concerns, world crude oil prices escalated, averaging US\$56 per barrel for West Texas Intermediate (WTI), an increase of about 36 percent compared with 2004. West Texas Intermediate began the year at US\$43.50 per barrel, but reached a peak of about US\$71 per barrel in late August, before ubsiding to about US\$60 per barrel by year-end.

Canadian crude oil production was uneven during 2005. Production levels decreased during the first three quarters of the year; however, they improved in the ourth quarter. The average production for the year was down by three percent compared with 2004.

n response to high natural gas prices, 2005 was the third consecutive year of record gas drilling in Canada, with an estimated 20 000 gas wells being drilled. The increase allowed Canadian natural gas production to rise marginally in 2005. Although conventional gas output remained relatively flat, supply was supplemented by a small but growing contribution from natural gas from coal (NGC). Conventional gas from western Canada accounted for roughly 96 percent of annual production, with NGC providing almost two percent. The addition of a fifth field to the Sable sland project helped to maintain east coast offshore production, which made up the remaining two percent.





Rising crude oil prices, hot summer weather that increased gas use for electricity generation, and supply disruptions because of hurricane activity in the Gulf of Mexico contributed to natural gas prices averaging about US\$8.40 per MMBtu across North America in 2005, an increase of about 50 percent compared with 2004.

Rapid growth in the wind industry is a key development in Canadian electricity markets. Wind generation currently provides less than one percent of Canadian generation capacity (840 megawatt [MW]); however, it is expected to grow rapidly over the next several years. A record number of wind turbines were installed in 2005, with more than 350 MW installed compared with 120 MW installed in 2004. Higher energy prices, the federal wind power production incentive, and "energy calls" by several provincial governments for green and renewable power are increasing the interest in wind power. Development of wind power has been particularly strong in Alberta, Quebec, Ontario, Manitoba and Saskatchewan. In 2005, the Board initiated a study on emerging technologies for power generation which will be published in 2006.

In 2005, electricity production was up slightly from 2004. Improved water conditions meant that hydro-generation increased by 1.8 percent. Higher prices for fuel led to a two percent decrease in thermal generation and an increase of less than one percent in nuclear generation. On the demand side, domestic demand remained relatively flat, while exports increased by 30 percent because of improved hydroelectric capability.

ENERGY AND THE CANADIAN ECONOMY

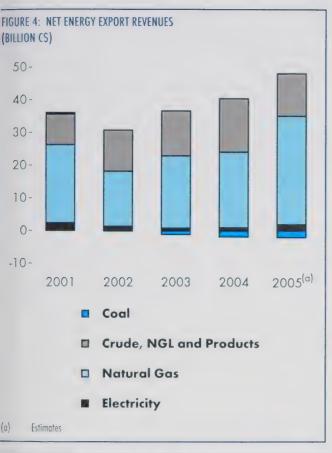
In 2005, the energy industry accounted for almost six percent of Canada's Gross Domestic Product (GDP) and employed around 330 000 people (1.9 percent of the Canadian labour force). Energy export revenue of about \$80 billion accounted for an estimated 19 percent of the value of Canadian goods and services exported in 2005 – an increase of 15 percent from 2004. Changes in 2005 energy export volumes varied depending on the commodity. Crude oil exports decreased by four percent, coal and coal products exports increased 31 percent,

refined petroleum products and natural gas were dow by about one percent, and electricity exports increase by 30 percent. In 2005, Canada's net energy exporrevenue (the value of energy exports minus value of energy imports) was \$46.0 billion, up from \$38.6 billion in 2004 (Figure 4). This increase is largely attributed to the increase in energy export revenue.

Total Canadian energy production (Table 1) remainer flat in 2005 compared with an increase of 3.1 percent in 2004. During the 2001 to 2005 period, average Canadia energy production increased one percent per year.

	 DOMESTIC EN OULES) 	IERGY PRODU	CTION BY S	OURCE		
		2001	2002	2003	2004	2005
Petroleur	m ^(b)	5 717	6 049	6 365	6 517	6 30
Natural (Gas	6 667	6 660	6 462	6 524	6 59
Hydroele	ctricity	1 182	1 245	1 198	1 207	1 29
Nuclear		837	824	817	986	99
Coal		1 533	1 430	1 326	1 432	1 44
Renewal	ole and Other(c)	588	631	633	657	68
Total		16 524	16 839	16 801	17 323	17 31
(a)	Estimates					
(b)	Petroleum includes	s crude oil and go	ıs plant natura	l gas liquids (N	GLs)	
(c)	Includes steam, so	lid wood waste, :	spent pulping l	iquor and anni	al firewood	
Cource	Statistics Canada NER					

Petroleum and natural gas accounted for 36 percent ar 38 percent, respectively, of total energy production 2005. Hydroelectricity production accounted for eight percent of the total and experienced the largest increas in 2005 due to a recovery from drought conditions. The declining trend in coal production stopped in 2004 with production increasing in 2005 because of high demandant for coal in China and the start of production from nemines late in the year. Production from renewable at other energy sources increased by nearly four percent ov 2004, partly a result of increased wind energy comin online in several regions. Nuclear energy production increased slightly.



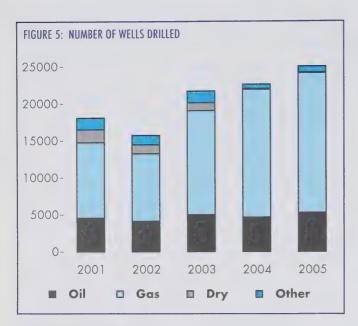
		TIC ENERGY C	ONSUMPTION	(0)		
(PETA)	IOULES)					
		2001	2002	2003	2004	2005 ^(b)
Space H	eating	1 885	1 970	2 065	2 032	2 074
Transpor	tation	2 240	2 250	2 242	2 346	2 383
Other Us	ses(c)	3 050	3 164	3 298	3 312	3 391
Non-Ene	rgy(d)	863	894	903	1 018	1 075
Electricit Generati	*	1 841	1 911	1 850	2 029	2 068
Total		9 879	10 189	10 358	10 737	10 991
(a)	Includes co	nsumption of im	ported energy			
(b)	Estimates					
(c)	Includes er industrial s	nergy used for spector.	ace cooling and	ventilation as we	ll as a variety of	uses in the
(d)	Includes en	ergy used for petr	ochemical feedst	ocks, anodes/cath	nodes, greases, lu	bricants, etc.
(e)	Includes pro	oducer consumptio	in and losses as v	vell as nuclear ene	ergy conversion re	equirements.
	Statistics C	anada, NEB				

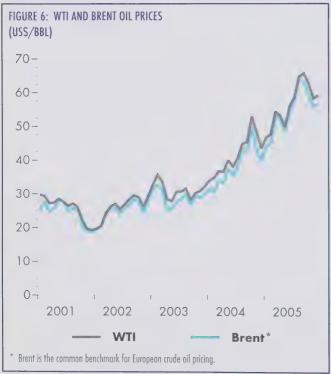
Preliminary estimates indicate that domestic energy consumption increased by 2.4 percent in 2005. From 2001 to 2005, Canadian energy consumption increased an average of 2.3 percent per year compared with the five-year average real GDP growth rate of 2.9 percent. This suggests a slight improvement in the energy intensity of the economy over the past five years (Table 2).

UPSTREAM OIL AND GAS ACTIVITY

High prices for oil and natural gas drove upstream activity to new heights in 2005. The number of oil and natural gas wells drilled in 2005 increased to over 25 000, or 12 percent above the record set in 2004 (Figure 5). Oil and gas-related activity increased in 2005, with the split roughly the same as last year at 80 percent directed to gas and 20 percent to oil (including oil sands). The increase was achieved despite wet weather and flooding in parts of western Canada that hampered activity in the first half of the year. Operations in the second half more than compensated for weather-associated delays, with the number of active rigs significantly higher than in any previous non-winter period. Competition for land rights, rigs, services, materials and labour pushed drilling costs higher during the year, but overall, cost increases were exceeded by the rise in crude oil and gas prices.

In 2005, there were 488 drilling rigs operating on average each month in western Canada. This is an increase of 18 percent over 2004. More drilling rigs were added to the fleet in 2005 than in previous years in response to high demand in the field. To ensure availability, several companies committed to leasing rigs for extended periods of one year or more. Availability of enough trained personnel to operate the growing rig fleet and to identify prospects and undertake drilling programs remains a challenge for the gas industry going forward. The most active areas continue to be in the northeastern portion of British Columbia, the Alberta Foothills, and south-central Alberta where there is a large increase in NGC production. In addition, Manitoba is on target to experience its best year in terms of activity in more than 50 years.





Competition for land rights increased in 2005, with western provinces collecting \$2.3 billion in revenue from land sale bonuses up over 60 percent from the previous year. The average price per hectare increased to \$571 in

2005, from \$312 in 2004. Record British Columbia sales accounted for a portion of the increase, and Saskatchewar land sales were up 80 percent over 2004. In Alberta interest was strong in NGC regions and oil sands areas with continued interest in the foothills and southeast areas of the province. The call for bids on exploration licenses offshore Newfoundland in 2005 received over \$71 million in work expenditure commitments over the next five years on five parcels compared with \$673 million or eight parcels in 2004. The industry continues to evaluate previously acquired parcels offshore Nova Scotia; however no new commitments were made in 2005.

Seismic survey activity in western Canada continued a gradual decline in 2005, with the number of activity remains below the five-year average and indicates that the emphasis is on exploration and development in previously surveyed areas. Seismic activity in 2005 was focused in the southwest and the foothills regions of Alberta and in northeast British Columbia. On the east coast, there were a total of 24 seismic crews working during 2005 an increase of 50 percent over the previous year and equivalent to two percent of seismic survey activity in Canada during 2005.

Canada's oil and gas industry undertook \$39.1 billion o capital expenditures in 2005, an 18 percent increase over 2004. Estimated capital spending on oil sands project rose by eight percent during the year to account for 17 percent of industry capital spending.

CRUDE OIL AND NATURAL GAS LIQUIDS

International Markets

World crude oil prices were very high in 2005 underpinned by a tight global supply and demand balance, reflecting significant demand growth and limited spare production and refining capacity. Weather related events further exacerbated the tight supply and demand balance. Benchmark WT began the year around US\$43 per barrel and, by March the average for the month exceeded US\$54 per barrel Prices increased again in August when the average for the

nonth was nearly US\$65 per barrel, reflecting the supply osses from Hurricane Katrina. The high price for the ear of US\$70.85 per barrel occurred on 30 August. Prices then began to moderate following announcements that the international Energy Agency would release supplies from a member country emergency stocks and the United States would offer to sell crude oil from its Strategic Petroleum esserve. West Texas Intermediate closed the year at US\$60 per barrel. The average price for 2005 was about US\$56 per barrel, an increase of US\$15 per barrel or 36 percent compared with 2004. Figure 6 illustrates the price of WTI and Brent for the years 2001 through 2005.

he Organization of Petroleum Exporting Countries OPEC) held five meetings in 2005 to review the worldwide apply and demand situation and establish its production uotas. In January, OPEC decided not to change its existing uota of 27 million barrels per day. The group also decided suspend its price band target for its basket of seven crude ils. At its March meeting, OPEC raised its quotas by 0.5 nillion barrels per day to 27.5 million barrels per day. also decided to change the composition of the OPEC asket to include 11 crude oils, representing the main xport streams from each member country. In June, OPEC gain opted to increase its quota by 0.5 million barrels per ay to 28 million barrels per day effective 1 July 2005. At s September session, OPEC did not change its quota but nnounced that it would make its estimated spare capacity vailable to the market if there were buyers. In December, at s last meeting for the year, OPEC did not change its quota nd announced that the offer to make the spare capacity of wo million barrels per day available to the market would ot be extended beyond 31 December 2005.

anadian Oil Production and Reserves Replacement

n 2005, Canadian production of crude oil and equivalent veraged 391 900 cubic metres per day (m³/d), down by bout three percent from 2004 levels. This reduction effects declining Western Canada Sedimentary Basin WCSB) conventional crude oil production and perational problems experienced at oil sands mining and pgrading projects and at the Terra Nova Field offshore Newfoundland and Labrador (Table 3).

	2000	2001	2002	2003	2004	2005
Conventional Light (East)	23.6	24.3	46.0	54.1	50.5	48.
Conventional Light (West)	108.3	103.9	96.0	92.1	87.6	82.
Synthetic (Upgraded Bitumen)	50.1	54.7	69.1	82.7	95.2	100
Pentanes Plus	27.3	25.8	25.2	25.8	25.7	
Total Light	209.3	208.7	236.3	254.7	259.0	237
Conventional Heavy	89.0	90.9	88.0	86.7	86.5	1.4
Non-Upgraded Bitumen	44.4	47.7	47.4	55.2	61.5	1.
Total Heavy	133.4	138.6	135.4	141.9	148.0	154.
Total Crude Oil and Equivalent	342.7	347.3	371.7	396.6	407.0	391
Natural Gas Liquids (a) Estimates	99.8	92 9	95 /	4d å	08.0	

Production offshore Newfoundland and Labrador was down by four percent to 48 400 m³/d, reflecting the natural decline in the Hibernia and Terra Nova fields and several short-term operational problems at the Terra Nova field. In western Canada, crude oil and equivalent supply decreased by three percent in 2005. Conventional light crude oil production declined by six percent, reflecting the natural decline of light oil reservoirs in the WCSB. Conventional heavy crude oil production levels declined by two percent, in line with a general shallow downtrend that has developed since the production peak in 2001.

Although total production in 2005 was down compared with 2004, production levels in the fourth quarter were strong, reflecting the return to production of the oil sands integrated mining and upgrading plants in Alberta and the start of production at the White Rose Field offshore Newfoundland and Labrador. The contribution from these new projects is expected to increase 2006 Canadian crude oil production levels by about 10 percent from 2005 levels.

Though remaining established reserves are reduced by production each year, new discoveries, extensions to existing pools and revisions to reserve estimates in existing pools usually add to reserves. From 2000 to 2004, cumulative additions of conventional light and heavy crude oil to established reserves replaced 80 percent of production (Table 4).

TABLE 4: CONVENTIONAL CRUDE OIL RESERVES, ADDITIONS AND PRODUCTION 2000-2004 (MILLION CUBIC METRES)							
	2000	2001	2002	2003	2004	Total	
Additions (0)	78.8	35	88.1	60.8	66.9	329.6	
Production	79.1	84	81	85.6	82.7	412.4	
Total remaining Reserves	700	680	690	663	640		
Total In Millions of Barrels	4 405	4 279	4 342	4 172	4 027		
(a) White Rose reserves added in 2002							

The NEB's estimate of total remaining Canadian conventional crude oil and crude bitumen reserves at year-end 2004 (the last year for which complete data is available) is 28.3 billion cubic metres, a decrease of 0.5 percent compared with 2003 (Table 5). Estimates of remaining established conventional crude oil reserves in Canada decreased by three percent to 639.9 million cubic metres for 2004, and remaining established crude bitumen reserves decreased slightly to 27.7 billion cubic metres reflecting 2005 bitumen production.

Oil Sands

The existence and importance of Canada's very large crude bitumen reserves, in the context of world oil supply, continued to attract attention from multinationals, integrated producers and national oil companies seeking to participate in oil sands development.

In 2005, bitumen production from mining and in situ operations totalled 169 100 m³/d, down two percent from 2004. In situ bitumen production increased by 13 percent to 69 600 m³/d. Bitumen from mining operations decreased by 11 percent to 99 500 m³/d, and upgraded bitumen production declined by 14 percent to 81 800 m³/d (Figure 7).

TABLE 5: ESTIMATES OF ESTABLISHED RESERVES OF	CRUDE OIL AND I	BITUMEN			
AT 31 DECEMBER 2004 (MILLION CUBIC METRES)	1 44 1				
Conventional Crude Oil	Initial	Remaining			
British Columbia ^(a)	126.0	21.9			
Alberta ^(b)	2 665.0	249.3			
Saskatchewan ^{(c) (e)}	858.7	187.8			
Manitoba ^(d)	40.5	4.3			
Ontario ^(e)	14.7	2.0			
NWT(Nunavut) and Yukon					
Arctic Islands and Eastern Arctic Offshore ^(f)	0.5	0.0			
Mainland Territories - Norman Wells	53.3	16.8			
Nova Scotia ^(d) - Cohasset and Panuke	7.0	0.0			
Newfoundland ^(d) - Hibernia, Terra Nova and White Rose	239.0	157.8			
Total	4 004.7	639.9			
Total in Millions of Barrels	25 201.2	4026.8			
Crude Bitumen					
Oil Sands - Upgraded Crude ^(g)	5 590	5 090			
Oil Sands - Bitumen ^(g)	22 802	22 570			
Total	28 392	27 660			
Total in Millions of Barrels	178 668	174 062			
Total Conventional and Bitumen	32 397	28 300			
Total in Millions of Barrels	203 869	178 088			
Sources:					
(a) British Columbia Ministry of Energy & Mines and NEB common database					
(b) Alberta Energy & Utilities Board and NEB common database					
(c) Saskatchewan Reservoir Annual 2003					
Provincial Agencies and Offshore Boards					

- Provincial Agencies and Offshore Boards
- Canadian Association of Petroleum Producers
- Bent Horn abandoned 1996 (f)
- Alberta EUB Reserves and Supply Outlook

Note: Totals may not add due to rounding.

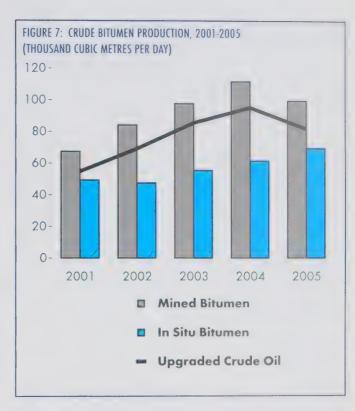
inscheduled interruptions at the three major integrated nining and upgrading operations resulted in decreased roduction and also led to lower output of upgraded roducts. At the Scotford Upgrader, operated by Shell Canada Limited, one of two production trains was nutdown for maintenance and repairs from October 004 through January 2005. The same train was also nut down for a period in mid-March. At Suncor Energy, amage caused by fire in early January cut production in alf until repairs were completed in mid-September. In October, Suncor completed an expansion that increased il sands production capacity to 41 300 m³/d from ne previous capacity of 35 700 m³/d. At Syncrude Canada Ltd., repairs and turnaround activities resulted production being about 10 percent below previously precast volumes.

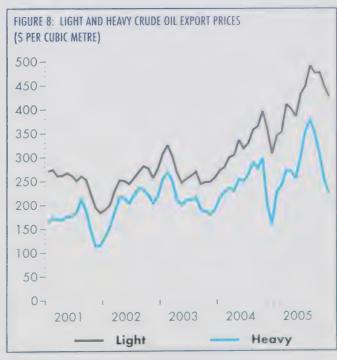
High world oil prices in 2005 and the outlook for astained high prices in the future have attracted a great eal of attention to the oil sands and led to increased lans for oil sands investment and development. The extent to which these plans will be realized depends largely in the capacity of industry to build these facilities and in continued attractive economic returns for bitumen roduction and upgrading.

rude Oil Exports and Imports

otal crude oil exports, including pentanes plus and pgraded bitumen (synthetic crude), are estimated at 49 730 m³/d, a decrease of 9 870 m³/d or four percent rom 2004. The 2005 total consisted of 32 percent light rude oil and equivalent and 68 percent blended heavy rude oil.

Prices remained high throughout 2005. The estimated alue of crude oil exports is \$30.1 billion compared with 26.4 billion in 2004. In 2005, the projected average light rude oil export price was \$68 per barrel (\$426 per cubic netre) and the heavy crude oil export price was \$38 per parrel (\$286 per cubic metre). In 2004, the average light rude oil export price was \$52 (\$328 per cubic metre) and the heavy crude oil export price was \$40 per barrel (\$249 per cubic metre) (Figure 8).





The light/heavy price differential widened in 2005 to average about \$26 per barrel (\$163 per cubic metre) compared with \$16 per barrel (\$101 per cubic metre) in 2004 (Figure 8). The differential narrowed slightly during the summer asphalt season but widened again in September. Hurricanes on the U.S. Gulf Coast kept the differential wide as heavy volumes were stranded in the market because of the loss of refining capacity on the Gulf Coast. Light sweet crude oil continued to strengthen because of high demand for light refined petroleum products and tight North American refining capacity. Prices began to decline in October with the release of International Energy Agency emergency petroleum stocks and crude oil from the United States' Strategic Petroleum Reserve.

In 2005, Canada remained the leading crude oil exporting country to the United States, surpassing Mexico and Saudi Arabia. High demand during most of the year for diesel fuel, motor gasoline and jet fuel resulted in North American refineries operating at over 95 percent of capacity. The U.S. Midwest is the largest market for western Canadian crude oil. The refining centers of Chicago, Illinois, Twin Cities, Minnesota and Toledo, Ohio consumed 53 percent of total Canadian crude oil exports (Figure 9). In December, the available market expanded to the U.S. Gulf Coast with the reversal of Mobil's pipeline from Patoka, Illinois south. Canadian crude oil is delivered to this line via the Enbridge Lakehead Pipeline to Lockport, Illinois and the Mustang Pipeline to Patoka.

The export market for eastern Canadian offshore production has been primarily the U.S. East Coast. In 2005, Canada exported 93 percent of its offshore crude oil production to Petroleum Administration for Defense District (PADD I), one percent to the U.S. Gulf Coast, and six percent to foreign markets. In 2005, Canada imported 143 500 m³/d of crude oil, which represents 50 percent of total refinery feedstock requirements in Canada. Crude oil requirements for the Atlantic and Quebec regions were met through east coast production and imports. Ontario refiners received about 40 percent of their feedstock requirements from foreign sources in 2005, half of which originates in the United Kingdom and Norway. Canada is a net exporter of crude oil.

Oil Refining

In 2005, Canadian refining capacity declined three percento 319 600 m³/d because of the closure of the Petro-Canad refinery in Oakville, Ontario. The loss of this capacity was mitigated by capacity expansions in Quebec.

Refinery production of main petroleum products als declined slightly to 286 000 m³/d. Demand for main petroleum products in Canada increased averaging 22 730 m³/d. Refinery receipts of domestic crude oil average 145 300 m³/d, reflecting the decrease in refining capacity Commercial inventories of petroleum products in Canada closed the year slightly higher than in 2004.

Main Petroleum Product Exports and Imports

Canada remains a net exporter of main petroleur products including middle distillates (heating oil, diese kerosene and jet fuel), heavy fuel oil and gasoline. I 2005, exports of main petroleum products and partiall processed oil are estimated at 55 800 m³/d, a seven percendecrease from 2004. The reduction in production level mean less volume available for the export market.

The estimated revenue in 2005 from main petroleum produce exports, including partially processed oil is \$6.2 billion, use from \$5.8 billion in 2004. Strong demand in North America for gasoline and diesel fuel along with refineries operating at capacity led to high product prices in the second quarter of 2005. The impacts of Hurricanes Katrina and Ritexacerbated the already tight refinery capacity situation by forcing the closure of many refineries on the U.S. Gu Coast. This resulted in the prices for gasoline, diesel and just fuel reaching record highs in August and September.

The United States continued to be the largest buyer of Canadian produced petroleum products, accounting for about 96 percent of total exports. Exports were also mad to Europe, Africa and parts of the Caribbean. The U.S. East Coast continued to be the largest market, followe by the U.S. West Coast and the U.S. Midwest.

nports of main petroleum products in 2005 are estimated 27 100 m³/d, a 13 percent increase from 2004.

atural Gas Liquids (excluding Pentanes Plus)

latural gas liquids (NGLs) are the liquid hydrocarbon roducts extracted from the natural gas stream and are nitially recovered as a hydrocarbon mix. The component arts can then be further fractionated or separated into aluable and marketable products such as ethane, propane

and butanes. Propane and butanes are also produced from crude oil refining and upgrading processes – products from these processes are referred to as liquefied petroleum gases (LPG). In 2005, it is estimated that 88 percent of propane and 68 percent of butane supplies came from natural gas production.

In 2005, refinery production of propane and butane declined from 2004 levels because of unplanned maintenance at oil sands mining operations and one



refinery closure. Refinery production of propane is estimated at 3 700 m³/d, a 13 percent decrease. Butane refinery production declined a marginal one percent because of continued strong demand for heavy oil diluent and is estimated at 7 600 m³/d.

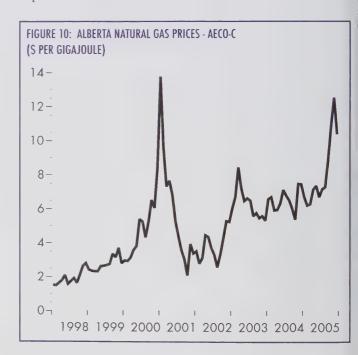
High NGL prices, supported by exceptionally high crude oil prices, created the incentive for NGL gas plant extraction through most of 2005. However, Canada experienced some weather-related damage to gas processing facilities in late June. Storms hitting southern and central Alberta temporarily shut down some of the Empress straddle plants. Further problems with the decompression/recompression facilities on the Foothills pipeline in October also decreased NGL volumes being extracted at Empress. These events primarily affected ethane and propane production. Ethane production decreased by about two percent to 39 500 m³/d. Propane production from gas plants decreased by two percent to 27 400 m³/d. Butane gas plant production remained relatively unchanged at 16 000 m³/d.

The U.S. Midwest continues to be Canada's largest export market for propane and butanes, accounting for about 60 percent of the total export volume. Hurricanes Katrina and Rita caused extensive damage to the gas processing industry in the U.S. Gulf Coast region and to refineries and natural gas production facilities. As a result, exceptionally high volumes of propane were exported to the United States from Canada during the latter part of the year to supplement lost U.S. supply. However, for 2005 overall, propane exports declined by 14 percent from 2004 to 20 600 m³/d. Butane export volumes also declined 12 percent to 4 400 m³/d.

The higher prices for propane offset lower propane export volumes, resulting in estimated 2005 export revenue of \$2.1 billion, three percent lower than in 2004. Higher butane prices combined with the same export volume resulted in 2005 export revenue for butane totalling \$562 million, which is four percent higher than in 2004.

Natural Gas

Despite a milder than normal winter in 2004-2005, North American gas prices continued to move higher during the year in response to insignificant production growth, rising crude oil prices, and a hot summer in key regions that led to more gas use for electricity generation (Figure 10). The major market development in 2005 was the significant disruption of U.S. gas production in the Gulf of Mexico and along the U.S. Gulf Coast because of a hyperactive hurricane season. In Canada, rising gas requirements for oil sands projects generally offset demand reductions associated with high gas prices in other industrial sectors. Relatively stable gas supply and demand in Canada resulted in a slight increase in net gas exports to the United States.



Natural Gas Production

With the exception of the short-lived Ladyfern gas field in British Columbia and the addition of east coast offshore production, Canadian natural gas production has been relatively stable since 1999. Production in western Canada is being maintained by drilling more wells to offset a gradual erosion in size and performance of gas prospects, which typically occurs as development of a basin progresses. Gas drilling in 2005 was no exception, rising by nine percent over the previous year's record to an estimated 20 000 wells and providing a one percent increase in production to 485 million cubic metres per day. The rise in drilling occurred despite delays caused by wet conditions and flooding in southern Alberta. Development of the South Venture field as part of the Sable Offshore Energy Project helped to maintain offshore Nova Scotia production at 11 million cubic metres per day.

In 2005, British Columbia's share of total natural gas production was 16 percent compared with 15 percent in 2004. Alberta's share of production dropped slightly to 77 percent in 2005 from 78 percent in 2004. Production levels in the other provinces were largely unchanged in 2005 with Saskatchewan representing four percent, Nova Scotia two percent, Northwest Territories and Yukon 0.3 percent, and Ontario 0.2 percent.

Natural Gas Reserves

The NEB's estimate of remaining marketable natural gas reserves at the end of 2004 (the last year for which data is available), is 1 545 billion cubic metres (Table 6). Reserve additions were 202 billion cubic metres in 2004 and replaced 115 percent of annual production (Table 7). The rise in remaining reserves was the first since 1995 and was largely because of increased exploration, supplemented by improved recovery in known gas fields. Both factors were driven by the increase in natural gas prices. Initial reserves increased in Alberta, British Columbia and Saskatchewan and Ontario in 2004, while the frontier regions remained unchanged.

	Initial	Remaining
British Columbia ⁽⁰⁾	822.1	284.3
Alberta ^(b)	4 496.2	1 127.1
Saskatchewan ^(c)	224.6	75.0
Ontario ^(d)	33.8	1
NWT, Nunavut & Yukon ^(c)	32.1	14.1
Nova Scotia - Offshore	54.6	3) 8
Total	5 663.4	1 544.5
(Total In Trillion Cubic Feet, Tcf)	199.9	54.5
(a) British Columbia Ministry of Energy & M	Aines and NEB common database	е
(b) Alberta Energy & Utilities Board and NE	B common database	
(c) NEB Estimate		
(d) Canadian Association of Petroleum Proc	lucers	

TABLE 7: NATURAL GAS RI (BILLION CUBIC METRES)	ESERVES, A	DDITION	S AND PR	ODUCTIO	N	
	2000	2001	2002	2003	2004	Total
Additions	169	169	166	92	202	7
Production	176	179	179	174	175	1
Total Remaining Reserves	1 622	1 612	1 599	1 518	1 545	
Total in Trillion Cubic Feet	57.3	56.9	56.4	53.6	54.5	

Natural Gas Demand

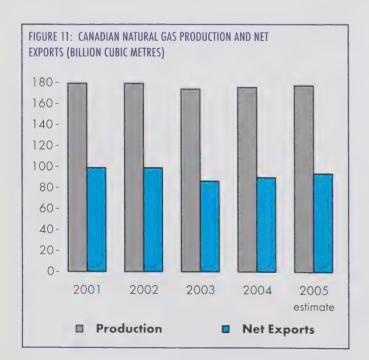
The significant increase in the gas price and mild weather during the heating seasons caused the total demand in Canada to fall by roughly 2.5 percent in 2005. The industrial sector was the most responsive to changing market conditions with demand falling by over three percent. Residential and commercial gas demand was similar to 2004 because of mild weather during much of the 2005 heating season.

Natural Gas Exports and Imports

Net natural gas exports rose to 93.5 billion cubic metres in 2005 or four percent higher than the previous year (Figure 11). The increase in net exports comprised a 3.4 percent rise in gross exports from Canada to 105.7 billion cubic metres and a 2.4 percent drop in natural gas imports to 12.2 billion cubic metres.

The increase in net exports was a result of lower gas demand in Canada because of mild winter weather and the slight increase in Canadian natural gas production. In 2005, net exports represented 53 percent of total Canadian production.

The U.S. Midwest and Mountain regions continued to account for the largest share of exports at 48 percent, a slight reduction from 49 percent in 2004 (Figure 12). The U.S. Northeast market experienced the largest increase in exports in 2005 with the region's share rising to 28 percent from 25 percent in 2004. The increased use of Canadian gas in the U.S. Northeast reflects higher gas use for power generation during the hot summer, reduced gas flows from the Gulf Coast due to hurricanes, and lower LNG



imports. The California and Pacific Northwest regions slipped to 24 percent of exports in 2005 compared with 26 percent in 2004, as greater use of Rockies gas and improved hydro conditions reduced gas requirements for power generation.

Short-term orders were used for roughly 88 percent of exports compared with 87 percent in 2004. Long-term licenses are in place for the remaining exports.

The value of Canadian natural gas exports to the U.S. set a record in 2005. Revenues from net exports rose to \$33.1 billion in 2005 compared with \$26.5 billion in 2004 because of higher export volumes and significantly higher prices. The average export price of \$9.68 per gigajoule in 2005 was 36 percent higher than the \$7.13 per gigajoule earned in 2004. Compared to 2004 export prices in 2005 were higher in every month with the exception being January 2005.

ELECTRICITY

Restructuring and Market Developments

Canada

Though the NEB authorizes electricity exports and the construction and operation of international power lines, jurisdiction over the electricity industry in many respects resides with the provinces and territories. Across the country in 2005, regional jurisdictions took action to implement measures to restructure their markets and move forward on specific initiatives for ensuring longer-term supply adequacy.

In 2005, the Government of Newfoundland and Labrador issued a request for proposals (RFPs) for developing the Lower Churchill hydro resources. After assessing the proposals that were received, the provincial government selected three full development proponents to progress to the next phase. (The province is also considering developing the project on its own.) In the next phase, project proponents will complete a feasibility review and discuss commercial principles. Potential markets for the hydro resources include Newfoundland and Labrador,



Ontario, Québec, the Maritime Provinces and the U.S. Northeast. In November, the provincial government released a discussion paper that will be the basis of a consultation process for developing an energy plan for Newfoundland and Labrador. The public consultation process will begin in early 2006.

With the passage of the *Electricity Act (2004)*, Nova Scotia put in place restructuring plans to mandate wholesale access to Nova Scotia Power Inc.'s (NSPI) transmission system for six municipal distributors. These distributors account for about five percent of Nova Scotia's electricity demand. Nova Scotia Power Inc., a utility owned by Emera, serves the remainder. The Nova Scotia Utility and Review Board approved NSPI's

Open Access Transmission Tariff in May. The New Brunswick System Operator (NBSO) will be the control area operator and reliability coordinator for Nova Scotia. The NBSO will operate NSPI's internet-based Open Access Same-Time Information System to support non-discriminatory open access to the transmission system. The proposed implementation will allow transmission customers to make a single point-to-point reservation for using the New Brunswick and Nova Scotia transmission systems.

Nova Scotia's *Electricity Act (2004)* also mandated a renewable portfolio standard to foster the development of renewable power in the generation sector.

Quebec is also developing a long-term energy strategy. In November, the Québec Government issued a consultation document that set out energy policy objectives and preferred orientations. It is expected that it will publish a definitive energy strategy in early 2006. Hydro-Québec (HQ) has continued to enhance its supply capability to meet domestic and export loads. In August, HQ Production inaugurated the 526 MW Toulnustouc hydro generating station. In October, HQ Distribution issued a call for tenders for the purchase of an incremental 2 000 MW of wind power scheduled for December 2009 to December 2013. Including new tenders, HQ expects to purchase a total of 3 500 MW of wind power by the end of 2013. In its 2006 budget filed with the Régie de l'énergie (Régie), HQ Distribution raised its energy savings objective from 3.0 TWh to 4.1 TWh by 2010. The new target is nearly double the 2.1 TWh in annual savings recommended by the Régie in 2004.

In Ontario, pursuant to changes in the *Electricity Restructuring Act (2004)*, the Ontario Power Authority (OPA) came into existence. The OPA will support the provincial government's efforts to ensure adequate supply as the province deals with phasing out its coal-fired generation plants (by 2009) and with some uncertainty regarding the return of its nuclear reactors to service. The OPA was active in authorizing new supplies of clean (natural gas) and green (wind and other renewables) energy through a series of power purchase arrangements, and in 2005, issued more invitations to interested parties to bid on futures supplies. In December, OPA announced recommendations for the future supply mix for the province and will coordinate these recommendations with an electric transmission system plan later in 2006.

On the demand side, Ontario encountered challenges with meeting summer peak loads in 2005. This forced the Independent Electricity System Operator to issue public appeals to reduce consumption on several occasions. It is expected that tightness during future peak periods will be reduced because of new generation that started in late 2005. In addition, the summer peak load may be somewhat reduced with the start of time-of-use pricing in May 2006, which will mean significant differences between peak and off-peak prices.

Ontario and Manitoba announced plans to expand the Clean Energy Transfer Initiative. The proposal could see additional power flow starting as early as 2006 (400 MW by 2009) with de-bottlenecking of the current interconnection in northwestern Ontario.

In late 2005, Manitoba and Saskatchewan saw the start of two large wind projects. A 99 MW project is located near St. Leon, southwest of Winnipeg, Manitoba and the Centennial project (150 MW) is located southeast of Swift Current, Saskatchewan.

In Alberta, 450 MW of new generation was brought online when Genesee 3, Canada's first "supercritical" coal-fired generating facility, was completed in March. In October, it was announced that the 660 MW Cloverbar natural gas-fired generating unit would be taken out of service because there were no economically feasible operating alternatives for the plant. In November, the Balancing Pool announced that the 756 MW Sheerness Power Purchase Agreement had been sold to TransCanada Power for fifteen years. Strong opposition in the Alberta electricity sector put the implementation of a capacity market in Alberta to rest.

In June, the British Columbia Hydro and Power Authority (BC Hydro) announced it would not proceed with the Duke Point Power Project because of risks associated with the completion date. The project would have supplied electricity to customers on Vancouver Island. BC Hydro issued a call for power in December, targeting the procurement of about 300 MW of electrical energy from Independent Power Producers to meet energy needs starting in 2010. A minimum of 50 percent of the energy is to be purchased from B.C. Clean Electricity sources.

United States

Important trade in electricity occurs between Canadian and U.S. jurisdictions. Although Canada is a net exporter to the United States, mainly because of the availability of hydroelectric resources, both countries realize commercial benefits and improved electric reliability.

In 2005, the New England Independent System Operator, located adjacent to New Brunswick and Quebec, and the Midwest Independent System Operator (MISO), located adjacent to Ontario, Manitoba, and Saskatchewan, joined the PJM Interconnection as FERC-approved regional transmission organizations (RTO). The timing and membership of Grid West (located adjacent to Alberta and British Columbia) is uncertain. Though the current start-up could occur in 2008, the Bonneville Power Administration, a major player, has recently withdrawn. Manitoba Hydro has a coordination agreement with MISO, and British Columbia has expressed interest in gaining membership in Grid West through the British Columbia Transmission Corporation.

Electric Reliability

In August, the United States Congress passed the *Energy Policy Act* of 2005. This comprehensive energy legislation includes several initiatives directed toward the electricity sector, including a process to enable the implementation of mandatory electric reliability standards. Pursuant to this legislation, the FERC will have oversight of an independent Electric Reliability Organization (ERO) that will implement and enforce mandatory reliability standards.

Because of the interconnected nature of the bulk power (wholesale) system (e.g. between Canada and the United States and between the United States and Mexico), the ERO will seek recognition by Canadian and Mexican regulatory authorities. In preparation, the North American Electric Reliability Council (a party seeking to become the ERO) began informal discussions in late 2005 with the provincial regulators and the NEB. Discussions included how Canada's interests would be represented in the ERO.

Electricity Production

Water conditions continued to improve in many parts of Canada in 2005 and hydro generation recovered slightly from 59 percent to 60 percent of total generation. Because of higher thermal fuel (coal, natural gas, oil) costs, total electricity production from thermal sources in 2005 decreased slightly but its share of total Canadian electricity production remained constant at about 26 percent.

Nuclear generation increased slightly in 2005 and its share of electricity production was maintained at about 15 percent. The net effect was an increase in electricity production from 567.8 TWh in 2004 to 568.9 TWh in 2005 (Table 8).

TABL	E 8: ELECTF	RICITY PRODUC	TION (TERAW	ATT HOURS)(0)		
		2001	2002	2003	2004	2005(6)
Hydro	pelectric	328.3	345.9	332.8	334.5	340.4
Nucle	101	72.4	71.3	70.7	85.3	85.9
Thern	nal	165.1	161.6	160.7	148.0	145.1
Total		565.8	578.8	564.2	567.8	568.9
(0)		istics Canada Ener nd Table 8.3 Indus	0,			of Electricity
(b)	Estimates					

Similar to last year, several provinces in 2005 issued RFPs for new sources of electricity production. Provinces issued RFPs designed at increasing production capacity, diversification and flexibility of supply. The RFPs brought in proposals for a variety of generation projects some of which included wind and other renewable energy, thermal, hydroelectric and cogeneration.

Electricity Demand

Electricity demand was relatively flat in Canada with about 548.8 TWh consumed in 2004 compared with 549.1 TWh in 2005. Warmer than normal winter weather in both 2004 and 2005 helped suppress increases in heating demand. Over the past five years, domestic demand has remained fairly flat increasing by about less than a percent per annum on average, while production also remained flat. Reasons for the minimal change in demand include improvements in technology, and the introduction of government programs and standards to encourage conservation.

Electricity Exports and Imports

In recent years, exports have trended downward mainly because of growing domestic demand and below average precipitation levels in hydro-based provinces. Imports have trended upward to meet temporary supply deficiencies in some areas. As a result, in 2003 and 2004 Canada experienced a smaller net export position. In 2005, Canada's net exports rebounded. A significant contributing factor was higher water levels caused by increased precipitation, particularly in Manitoba, a large contributor of exports to the United States.

In 2005, Canada's total exports rose to 42.9 TWh from 33 TWh, an increase of about 30 percent from the previous year (Figure 13). This follows a 13 percent increase in 2004 and is only the second time exports have risen since 2000. Imports declined 14 percent to 19.3 TWh from 22.5 TWh in 2004. Overall, Canada's net export position in 2005 was 23.7 TWh or 125 percent higher compared with the previous year.



SAFETY, SECURITY AND THE ENVIRONMENT

he NEB ensures the regulated energy industry operates in a manner that protects the employee, contractor, public, and the environment. The NEB's mandate now also includes oversight for the security of pipelines and international power lines, reflecting amendments made to the NEB Act that came into effect in April 2005.

The inherent risks associated with pipelines and other facilities regulated by the NEB are managed through competent design, construction, and operation and maintenance practices. Regulated companies have the primary responsibility for ensuring safety and environmental protection because they are the designers, builders and operators of the facilities. The NEB recognizes this responsibility in the ongoing development of goal-oriented regulation, which places the onus on companies to ensure their facilities are safe and secure and are operated in an environmentally responsible manner. The NEB plays a significant role by ensuring that the companies maintain or improve their safety and environmental performance. The Board ensures that companies identify and manage the safety, security, environmental, socio-economic and land risks associated with the lifecycle of regulated facilities. The Board achieves this by:

- developing goal-oriented regulations and guidelines;
- assessing facility applications from an engineering and safety perspective;
- conducting environmental, socio-economic and land assessments;
- ensuring companies conduct appropriate consultation with affected parties regarding proposed facilities;
- ensuring that appropriate mitigation measures, approval conditions and environmental protection plans are in place before granting project approval;
- reviewing construction progress reports, inspecting facilities, and auditing
 management systems to confirm regulatory requirements are met and
 to assess the effectiveness of mitigation measures, conditions, and
 environmental protection plans;
- assessing safety practices and procedures under the NEB mandate as
 well as through the *Canada Labour Code* through a Memorandum of
 Understanding (MOU) between Human Resources and Skills Development
 Canada (HRSDC) and the Board;

"NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected."





- investigating incidents with the intent of preventing future similar occurrences;
- addressing landowner complaints;
- meeting with regulated companies to review and assess the adequacy of their integrity management programs;
- responding to emergencies to monitor and contribute to the effectiveness of company responses;
- issuing safety advisories; and
- conducting inquiries or formal investigations into safety and environmental issues.

SAFETY AND SECURITY ASSESSMENTS

Perception of Safety

In March 2005, an NEB report entitled "Focus on Safety and Environment – A Comparative Analysis of Pipeline Performance 2000-2003" was released. This is the third report arising from the Safety Performance Indicator Initiative and reflects the most recent data available (more information about this initiative and copies of the reports are available at www.neb-one.gc.ca/safety/SafetyPerformanceIndicators/index_e.htm). The report was restructured in 2005 to better reflect the broad nature of its content in the areas of the environment, safety and integrity performance of regulated companies. More improvements are underway for the 2006 publication based on comments received during the NEB workshop in June 2005 and from a survey of stakeholders done in November 2005.

The performance of federally regulated pipeline companies within Canada, as outlined in this report, compares favourably with the performance of similar industries in the United States and Europe. The results reported for 2002-2003, with the exception of worker safety, are in line with or lower than NEB historical averages (Table 9).

TABLE 9: AMALGAMATED ENVIRONMENT PERFORMANCE DATA OF REGULATED CO		NTEGRITY	
Indicator	Historical Average 2000 to 2003	2002	2003
Fatality Frequency (fatalities per 100 full time equivalent workers)	0	0	0
Combined Injury Frequency (injuries per 100 full time equivalent workers)	1.10	0.49	0.99
Contractor Injury Frequency (injuries per 100 full time equivalent workers)	3.00	1.92	3.04
Employee Injury Frequency (injuries per 100 full time equivalent workers)	0.48	0.16	0.66
Rupture Frequency (ruptures per 1 000 km)	0.10	0.07	0
Spill Frequency (spills per 1 000 km)	0.32	0.74	0.07
Spill Volume Frequency (volume spilled per 1 000 km) (m³)	31.01	29.71	0.28
Gas Release Frequency (releases per 1 000 km)	0.45	0.31	0.21

The Board consulted with stakeholders on this matter at the NEB workshop held in Calgary in June 2005. The proceedings from this workshop can be found on the NEB Internet site at www.neb-one.gc.ca/Publications/NEBWorkshops/2005NEBWorkshopProceedings_e.pdf.

Preliminary analysis of the data for the 2004 reporting year indicates that contractor injury frequency has been reduced compared with previous years. The Board will continue to monitor performance in this area.

Companies are required to report incidents experienced during their operations in accordance with the *Onshore Pipeline Regulations*, 1999 (OPR-99) and the *National Energy Board Processing Plant Regulations*. NEB staff investigate these incidents in varied levels of detail depending on the severity of the event. When these investigations expose information that the Board feels would improve the safety performance of the industry, that information is shared through a Safety Advisory. Three NEB Safety Advisories were published in 2005 (www.nebone.gc.ca/safety/SafetyAdvisories/index_e.htm).

The advisories issued in 2005 included:

- the hazards associated with the failure or incorrect programming of programmable logic controllers required for fail-safe shut down of compressors and associated components;
- the safety hazards associated with shallow gas deposits in the Northwest Territories; and
- emphasis on the importance of disallowing the use of equipment in need of repair or which is defective in any way.

As a result of these safety advisories, facilities, operators and regulators can respond more knowledgeably to the hazards identified, thereby improving safety.

Regulating Pipeline Security Management

On 20 April 2005, the *Canadian Public Safety Act* was signed by Governor in Council, thereby amending the NEB Act to explicitly include security as part of the Board's mandate and provide the Board with the legislative authority to regulate security of energy infrastructure under its jurisdiction. The NEB is implementing a goal-oriented approach for meeting this mandate, supporting industry-led effective security management programs.

The Board's first step in addressing security management was to launch a Pipeline Security Management Assessment (PSMA) program in 2004:

- to assess existing pipeline security management programs at NEB-regulated companies;
- to promote security awareness; and
- to define the focus of regulatory oversight and compliance initiatives related to security management.

The program included a review of companies' security management programs followed by field verifications and site visits in 2004 and 2005. In total about 75 facilities across Canada were visited.

Between June 2004 and March 2005, the Board completed PSMAs on all ten Group 1 pipeline companies and two Group 2 pipeline companies. (See Supplement II for the Group 1 and Group 2 company lists.)

The PSMAs have provided the NEB with valuable insight as to how regulated pipeline companies are managing pipeline security and provided the Board with a perspective to establish a common baseline of security management programs in the regulated industry. The PSMAs also provided the Board with the knowledge needed to develop reasonable and prudent security focused regulations and compliance strategies.

On 14 September 2005, a Notice of Proposed Regulatory Change outlining the Board's intent to include security management in the OPR-99 was sent to all regulated companies and interested parties. The Board is considering the comments from these stakeholders while developing the security regulations. The Proposed Regulatory Change is expected to be released in 2006 and will outline the Board's regulatory expectations regarding security management. Further, in co-operation with pipeline associations, the pipeline industry, and provincial and federal government departments and agencies, the Board plans to develop a security management guide or consensus standard on security management to be referenced by the revised OPR-99.

To deal with overlapping and adjoining jurisdictions, common regulatory objectives and the need for effective communication about security management, the Board has developed, and continues to develop, formal and informal working agreements with federal and provincial government partners.

In October 2005, in cooperation with NRCan's Energy Infrastructure Protection Division and the Canada Nova Scotia Offshore Petroleum Board (C-NSOPB), the NEB developed a protocol and participated in a security management assessment of selected offshore facilities that form part of the Sable Offshore Energy Project (SOEP). The security management assessment was completed as a cooperative effort with the output being a single common report, with an agreed upon assessment of the program and recommendations. In this regard it provided all parties with the assurance that the SOEP operations and associated land-based support systems are being managed appropriately and effectively (from a security management perspective) and in compliance with applicable legislative requirements.

The C-NSOPB regulates portions of the SOEP which are directly connected to, and indirectly interconnected with, NEB-regulated facilities, such as pipelines, a shore-based control valve, the Goldboro Gas Plant and the Maritimes & Northeast Pipeline system.

Feedback from industry representatives indicates that the NEB's approach to regulating security management has been logical and practical. The NEB expects to continue with this approach. In developing the security regulations and the regulatory program to manage pipeline security, the NEB plans to continue to work closely with industry, the pipeline associations, the provincial regulators and agencies, federal agencies, and U.S. counterparts.

Although federal and provincial agencies have undertaken an enhanced security management focus and concerted security initiatives in the past several years, the immediate responsibility for protecting pipeline infrastructure remains with the pipeline companies. The Board expects that companies will remain diligent in developing, maintaining and applying adequate and effective security practices to protect their pipeline systems.

The Board believes that an effective security management program should address all reasonable security threats that could adversely affect the continued integrity of the pipeline systems, thereby compromising public safety, environmental protection, and the supply of transported product in an economically efficient manner. The comprehensiveness of these programs must, however, consider the size of the company, the operations involved, the facilities and the assets being protected, and be weighed against the potential risk of a successful security breach.

Based on the findings of the PSMA program, the responses to the Notice of Proposed Regulatory Change, and the feedback received from industry and other government departments and agencies, the Board is developing regulations and the strategy for regulating security management.

In 2006, the Board plans to release a Proposed Regulatory Change to address the inclusion of Security Management into the OPR-99, and plans to develop a security management guide or consensus standard on security management as a reference for the revised OPR-99.

The Board will continue to develop working relationships with provincial and federal partners and the industry to ensure that security is managed in a responsible and prudent manner and in the interest of the Canadian public.

ENVIRONMENTAL AND SOCIO-ECONOMIC ASSESSMENTS

Regulatory Context

Environmental and socio-economic assessments are governed by a dynamic and complex regulatory framework. Most NEB-regulated activities fall under the NEB Act; however, upstream oil and gas activities in frontier areas (areas not subject to a federal/provincial shared management agreement) are governed by the COGO Act. Most projects considered by the NEB must also undergo assessments under the CEA Act, or, for those projects in the Northwest Territories south of the Inuvialuit Settlement Region, under Part 5 of the Mackenzie Valley Resource Management Act. In 2005, the NEB completed one comprehensive study (Beaufort Sea Exploration Drilling Program) and 34 screenings

under the CEA Act, and completed or contributed to four preliminary screenings under the *Mackenzie Valley Resource Management Act*.

The NEB uses a streamlining approach to manage an effective and efficient socio-economic assessment process. In dealing with projects not excluded or streamlined, the Board uses a structured risk-management approach that considers the likelihood and consequence of potential effects. For example, certain simple, routine energy projects, such as adding a valve or a meter station to an existing pipeline under specific conditions, as identified in various provisions of the CEA Act Exclusion List Regulations and the NEB's Streamlining Order, are dealt with using a risk management approach. This helps to focus assessment attention and resources on larger or more complex projects (e.g. Mackenzie Gas Project) with potential for significant environmental and socio-economic effects.

In order to support an efficient assessment approach, the Board's environmental comprehensive study process has been integrated with the NEB hearing processes. The NEB will now carry out a comprehensive study within its established regulatory hearing process. The Board has also developed an internal guide to provide staff with information necessary to effectively and efficiently coordinate an approach to the comprehensive study process to better conform to the scheme of the CEA Act and the quasi-judicial nature of the NEB's responsibilities.

Coordination of Environmental Assessments

The NEB continues to work with stakeholders, including the CEA Agency, federal departments and provincial agencies, to improve the environmental assessment (EA) of federally regulated energy infrastructure projects. Activities in 2005 included coordination of federal departments involved in NEB projects, EA process simplification, and negotiations to harmonize EA processes with other jurisdictions.

For example, the NEB has led, or participated in, several early coordination initiatives to ensure regulators come

to early agreement on the scope, issues and timing of federal EA for projects that are likely to proceed to a regulatory application. In 2005, the NEB engaged in early EA coordination processes for several proposed projects, including the Rabaska LNG terminal near Québec City the Terasen anchor loop oil pipeline (British Columbia and Alberta) and the Enbridge Gateway oil pipeline (British Columbia and Alberta).

Substitution under the CEA Act

Some CEA Act requirements for major projects partially duplicate NEB Act processes and present an opportunity for increased EA harmonization and efficiency. In 2005, the NEB continued to collaborate with the CEA Agency on reform and consolidation of federal EA. The NEB supported the CEA Agency's commitment to use the substitution provisions of the CEA Act on a pilot basis for a designated NEB-regulated project.

Rabaska LNG Federal-Provincial EA Harmonization Discussions

Throughout 2005, the NEB, the CEA Agency, and the Québec Bureau d'audiences publiques sur l'environnement (BAPE) explored ways to harmonize the provincial and federal environmental assessment of the proposed Rabaska LNG terminal near Québec City. It is expected that the application for Rabaska will be filed with the provincial government.

SAFETY AND ENVIRONMENTAL OPERATIONS

Monitoring Compliance

The NEB monitors the activities undertaken by regulated companies from the initial design of the facilities through to ultimate abandonment. This monitoring is performed in order to assess compliance with conditions attached to the original Order or Certificate and to assure that the company is designing, constructing, operating or abandoning its facilities in accordance with the applicable regulations under the NEB Act and the COGO Act.

Compliance verification is conducted using a mix of audits, inspections and other methods. These tools are applied using a qualitative risk approach. In 2005, significant progress was made towards the implementation of an integrated compliance verification program which will be implemented in 2006. This program will focus the Board's compliance verification activities where they can achieve the optimum benefits.

The NEB uses tracking tools to monitor compliance, determine the effectiveness of conditions in obtaining the desired safety and environmental results, and report on the results.

The NEB supports a cooperative approach to compliance, working with companies to ensure that safety and environmental commitments and requirements are met. Non-compliance situations are handled in the first instance by obtaining an immediate and voluntary correction by the company. If a situation cannot be corrected immediately, or if additional information is required from a company, NEB inspectors may ask for a written Assurance of Voluntary Compliance (AVC).

In 2005, the NEB received an average of 0.48 AVC's on each inspection. This number is less than in the previous two years (0.53 AVC's per inspection in 2004 and 0.73 AVC's per inspection in 2003) and may be attributed to a combination of factors. There may be an enhanced understanding of the Board's expectations as a result of better communication to industry through workshops and compliance verification activities. In addition, it must be noted that the mix of compliance verification activities in 2005 was heavily focused on operations due to reduced levels of construction activity under the Board's jurisdiction.

Inspection officers appointed under the NEB Act can issue a stop work order where there are reasonable grounds to believe that a hazard to the safety of the public or employees of a company, or a detriment to property or the environment, is being or will be caused by the construction, operation, maintenance or abandonment of a pipeline, or any part of a pipeline, or an excavation

activity or the construction of a facility. No such orders were issued by NEB inspection officers in 2005.

Inspections

The NEB inspects the pipelines and facilities it regulates from construction through to abandonment. Inspection, safety and conservation officers confirm compliance with:

- legal requirements set out within the NEB Act and the COGO Act and the applicable subordinate legislation;
- commitments set out in the application and made during proceedings; and
- conditions of the project approval (e.g. Board Orders or Certificates).

In addition to inspections carried out under the NEB Act and the COGO Act, several NEB inspectors have also been designated as Health and Safety Officers by HRSDC. These Health and Safety Officers enforce the requirements of Part II of the *Canada Labour Code* among NEB-regulated companies on behalf of HRSDC.

Inspections provide valuable data necessary for the development of intelligence-based planning for future compliance verification activities. In addition, they serve to build a respectful working relationship between regulated companies and the NEB. As a respected and visible regulator, the NEB is able to obtain compliance from companies through discussion and rarely needs to escalate enforcement action beyond the receipt of an AVC.

Operational Safety Inspection Targets

In 2005, the NEB began to adjust the balance of operational safety inspections by establishing targets for the number of inspections of the larger (Group 1) companies and the small (Group 2) companies, which have less frequent interaction with the NEB. Eleven Group 1 companies and 22 Group 2 companies were inspected.

The intentional targeting of Group 2 companies provided the Board with the opportunity to engage these companies. In addition, it provided the Board with current intelligence on activities within these companies.

Facilities Inspections

The NEB inspects facilities construction and operation to ensure regulatory compliance. For example, inspections are conducted along existing pipeline systems to assess whether third party excavation work is being completed in compliance with the *Pipeline Crossing Regulations*.

In 2005, NEB inspection officers carried out:

- 11 safety and engineering and 7 environmental inspections on NEB-regulated projects under construction;
- 92 inspections of NEB-regulated facilities under operation;
- 10 pipeline crossing inspections;
- 13 post-construction environmental inspections to evaluate the success of reclamation and other mitigation measures on recently completed construction projects;
- 1 environmental inspection of a pipeline abandonment project;
- 8 inspections in response to environmentallyrelated landowner concerns;
- 130 workplace inspections under the *Canada Labour Code*.

Pipeline Operation and Maintenance Activities

In July 2005, the NEB implemented a risk-oriented approach to regulating operations and maintenance (O&M) activities on pipelines under the jurisdiction of

the NEB Act. This move was in response to regulated companies requesting more clarity about how O&M activities should be regulated and to landowners' continued emphasis on respect for their rights throughout the lifecycle of a regulated facility.

The Board issued a letter on 12 July 2005 to clarify which types of projects are considered O&M activities and, therefore, do not require an application under s.58 of the NEB Act. This risk-based approach clarifies and streamlines regulatory oversight of activities integral to the ongoing operation of approved facilities, allowing the Board and regulated companies to focus resources on non-routine activities. The letter introduced a requirement for companies to notify the Board before commencing certain types of O&M activities. Based on the risks associated with a particular O&M activity planned by a company, the notification provides the NEB with the opportunity to inspect the proposed activity. The requirements also clarify the NEB's expectations for companies to engage potentially affected stakeholders, particularly landowners, throughout the life of a regulated facility. A copy of the 12 July 2005 letter and associated requirements and guidance notes can be found on the NEB's Web site at www.neb-one.gc.ca/ActsRegulations/NEBAct/ GuidanceNotes/OperationsMaintenancePipelines_e.pdf.

The Board continues to regulate all O&M activities through its established inspection and audit programs, which ensure these activities are carried out with respect to safety, security, environmental protection, economic efficiency, and the rights of those affected. In 2005, the Board received 23 notifications of O&M activities and conducted four safety and engineering and two environmental inspections of these activities. To date, informal feedback from regulated companies has been positive. The Board plans to conduct a six month review of this O&M approach in February 2006.

Environmental Conditions

Through inspections and company filings, the NEB monitors not only company compliance with the conditions on Board Orders or Certificates but the effectiveness of those conditions in obtaining the desired safety and environmental results. In 2005, 56 environmental conditions were confirmed to be effective in achieving their desired outcomes, whereas one was not. This condition could not be confirmed to produce an effective outcome because it was not accompanied by the now standard company compliance self-reporting condition.

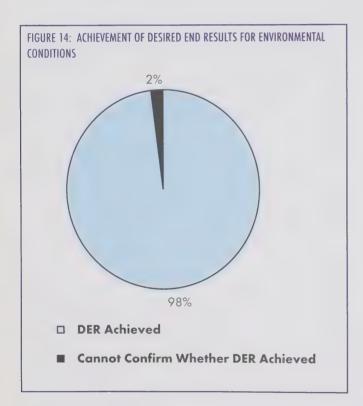


Figure 14 shows the relative proportion of environmental conditions that were found to be effective. Overall, this figure shows that the majority of environmental conditions are effective in obtaining the desired end result (DER). This is an outcome of NEB internal initiatives to track the reasons why past conditions could not be confirmed to be effective and to develop standardized conditions and guidance for writing effective non-standard conditions.

Non-accord Lands

On Canada's non-accord, or frontier, lands (lands not subject to a federal/provincial shared management agreement), conservation and safety officers inspected geophysical and drilling programs and production operations of the companies to confirm compliance with the Board approved program and relevant regulations. Occupational safety and health matters are also considered during these inspections. In 2005, conservation and safety officers conducted 51 inspections of activities and facilities on non-accord lands. All non-compliances with the applicable regulations observed during these inspections were corrected within 14 days.

Management System Audits

The NEB audits the management systems of NEB-regulated companies to evaluate compliance with the NEB and COGO Acts, the *Canada Labour Code*, Part II, relevant regulations, and a company's own policies, practices and procedures consistent with a management system. Through document review, interviews with company staff and onsite verification, NEB staff evaluate a company's compliance with relevant regulatory requirements and management system processes and procedures. An audit typically includes evaluation of a company's design and construction, pipeline integrity management program, emergency preparedness and response program, safety program and environmental protection program.

During 2005, the Board continued to develop and implement its management system audit program, which included defining planning processes, program implementation elements (e.g., work instructions, job descriptions and training requirements), performance measures and self-assessment procedures. The initiative was to continually improve the audit program through analysis of results from previous audits and an assessment of the Board's management system audit program policy, goals, objectives, processes and procedures.

In 2005, the NEB conducted one new audit and closed 13 previously conducted audits and 214 Findings. Audited

companies file Corrective Action Plans (CAP) with the Board that address each Finding. The CAP must be completed and verified before a Finding can be officially closed out. To date, audited companies have completed corrective actions for over two thirds of the Findings, indicating that the audit program and follow-up procedure are supporting the Board's mandate for protecting the public, employees and the environment.

The NEB also conducts financial audits of regulated companies, as discussed in the section on *Application Highlights*. In the course of examining a company's financial matters, these audits may also touch on safety or environmental matters pertaining to facility operation.

Integrated Compliance

In late 2004, the NEB began the Integrated Compliance Project to support a smart regulation approach to coordinating application, audit and inspection processes. The first steps in the project were to develop a program framework, and to improve the Board's ability to use the compliance data that is currently collected. This will enable the Board to better understand the safety and environmental issues and trends affecting NEB-regulated facilities and improve risk-based decisions about application assessment and compliance (e.g., inspections, audits) work planning.

INCIDENTS AND EMERGENCIES

Emergency Management

The NEB's primary role during an emergency situation is to monitor the company's response and ensure all reasonable actions were taken to protect employees, public safety and the environment. The NEB also verifies that regulated companies have adequate and effective emergency management programs that mitigate the impacts associated with an emergency situation.

Regulated companies are required to provide current and up to date versions of their emergency response plans to the NEB for review. In 2005, the NEB undertook the development of its own Emergency Management Program which establishes how the NEB prepares for,

and responds to, incidents and emergencies at NEB and COGO Act-regulated facilities. The new program will be in place in 2006.

The NEB encourages and participates in tabletop and full-scale emergency response exercises sponsored by pipeline companies. In 2005, the Board expanded this activity to include participation in four exercises for companies operating under the COGO Act. During 2005, the NEB conducted field responses to seven emergencies and participated in seven exercises, two of which were planned by the NEB. The exercises conducted by the NEB focused on production activities in the arctic and on pipeline operations within populated areas in Ontario. One of the primary goals of these exercises was to develop working relationships between response agencies at all levels of government in advance of an actual emergency situation. The exercises provided NEB staff with a wealth of data on our Emergency Response Procedure as well as useful feedback from participants. In addition, participants unanimously agreed that the exercises provided value to their own organizations and should be conducted at regular frequencies to ensure mutual understandings of respective roles.

Incidents

The NEB requires that certain events (defined as "incidents") be reported to the NEB. The purpose of this reporting is to provide the Board with the information necessary to determine the appropriateness of the companies' response to events which could have adverse effects on safety, the environment or the security of facilities. In addition, reporting provides the NEB with the opportunity to investigate, or, when appropriate, initiate an emergency response. When investigation determines that corrective actions are required, the Board ensures they are taken, either by the company, or by the industry as a whole.

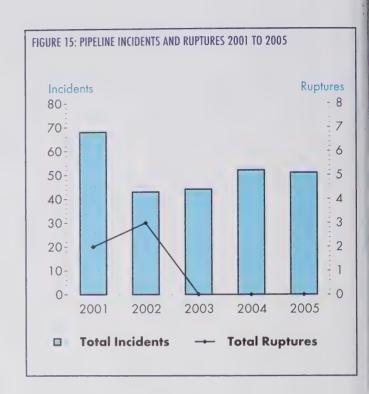
The following incidents must be reported to the NEB as they occur:

• the death or serious injury of a person;

- a significant adverse effect on the environment;
- an unintended fire or explosion;
- the unintended or uncontained release of low vapour pressure hydrocarbons in excess of 1 500 litres;
- the unintended or uncontrolled release of gas or high vapour pressure hydrocarbons;
- the operation of a pipeline beyond its design limits as determined under CSA Z662, CSA Z276 or any operating limits imposed by the Board; and
- within a processing plant, any occurrence that results or could result in a significant adverse effect on property, the environment or the safety of people.

In 2005, 50 incidents were reported to the NEB compared with 52 in 2004, and 49 in 2003 (Figure 15). The slight increase in reported incidents in recent years can be attributed to the Board's efforts to ensure that regulated companies understand their reporting obligations. The NEB is in the process of revising reporting requirements in an effort to achieve even greater compliance.

The NEB has a target of zero ruptures on the pipelines it regulates. The year 2005 marks the third consecutive year in which there have been no pipeline ruptures. This achievement can be attributed to the effectiveness of the integrity management programs (IMPs) implemented by companies over the past 10 years. In 2005, 15 meetings were held with the regulated companies to discuss their IMPs. The NEB was the first regulator in North America to require companies to have documented IMPs, introducing the requirement in the OPR-99. Since then, IMPs have become universally accepted in the global pipeline industry. Details of ruptures that have occurred on NEB-regulated pipelines dating back to 1992 are available at www.neb-one.gc.ca/safety/ PipelineRuptureData/index_e.htm.



In 2005, on non-accord frontier lands, the total number of hazardous occurrences, as defined by the *Oil and Gas Occupational Safety and Health Regulations* under the *Canada Labour Code* Part II, was 48, up by 14 from 2004. Thirty-eight of these hazardous occurrences were reportable spills, four were equipment failures, and five were disabling injuries. The disabling injuries increased from three in 2004 to five in 2005. Due to a proportional increase in hours worked from 2004 to 2005, the frequency of disabling injuries remained stable at 2.72 per million hours worked.

Spills and Releases

In 2005, reported incidents included 40 gaseous and liquid releases. This is up slightly from 37 releases in 2004 and 28 releases in 2003. The 40 reportable releases in 2005 included 20 natural gas releases (of any volume, sweet or sour), 13 low vapour pressure liquid hydrocarbon spills greater than 1 500 litres and five high vapour pressure liquid hydrocarbon releases such as natural gas liquids or propane. The remaining two releases were of acid gas and liquid sulphur. Four of the gas releases and two of the liquid

hydrocarbon spills in 2005 resulted from a failure of the pipe body. The remainder were associated with leaks from piping connections or tank openings. All but one of the liquid spills were contained within company property (such as pump stations or terminals) or pipeline rights-of-way.

In 2005, there were two hydrocarbon spills greater than 100 000 litres from NEB-regulated pipelines and facilities. The first occurred on 1 February 2005 when a fitting came loose during planned maintenance on a 30 000 cubic metre storage tank at Enbridge's Edmonton Terminal. All crude oil released during this event (about 950 cubic metres) was contained within the bermed area surrounding the tank, minimizing the environmental effect.

On 15 July 2005, Terasen identified a leak from its 508-mm diameter liquid hydrocarbon transfer line between its Sumas Mountain tank farm and Sumas Mountain pump station in Abbotsford, British Columbia. The leak resulted in an estimated release of 246 cubic metres of crude oil to a local wetland and creek. As of December 2005, the bulk of soil, sediment and surface water remediation was complete. Planning is underway for site restoration and longer-term monitoring and management of the site.

The NEB's response to hydrocarbon spills includes follow-up to confirm that site remediation is carried out. The NEB is currently working to formalize this process. Tools are being developed to enable the NEB to more consistently and efficiently track and manage spill site remediation files.

On non-accord frontier lands, reportable releases were up about 15 percent from 33 releases in 2004 to 38 in 2005, which echoes a 68 percent increase in the reported hours of exploration and production activity from 2004 to 2005. The 2005 releases included one liquid hydrocarbon spill greater than 1 500 litres, 11 other liquid releases greater than 1 500 litres, and one sour gas release.

Landowner Complaints

The NEB has been tracking landowner complaints related to environmental and rights' issues since April 1999. The Board's Landowner Complaint Resolution Program has evolved over the last six years in response to industry and landowner feedback.

In 2005, the Board received 20 landowner complaints:

- three of these were related to safety concerns about NEB-regulated facilities and activities and compliance with commitments and regulatory requirements;
- 12 were related to protection of the environment; and
- five were related to concerns about the rights of those affected.

More information on the Landowner Complaint Resolution Program and the associated Service Standards, introduced in 2005, is presented in the *Engaging Canadians* section.

TECHNICAL EXPERTISE

The NEB's mandate includes providing expert technical advice to Parliament and other government departments and agencies about energy matters. As well, in a variety of forums the Board provides many different agencies with information and expert technical advice on a wide range of regulatory and energy matters.

During 2005, the NEB hosted foreign delegations and provided overviews of the Canadian regulatory framework. The sessions provided an exchange of information and contributed positively to the building of international perspectives on regulatory subjects. Two examples of delegations to the Board were:

The rights protected relate to activities undertaken by a company over the life of the NEB-regulated facility, which means from the pre-application stage to abandonment of that facility. The consideration of rights may include, but is not limited to, service of notices, consultations, an opportunity to be heard by the Board, access to information, communication, reclamation, safety and protection of the environment.

- the MHI-Nippon-Itochu mission (September 2005); and
- the Unipec/Sinopec delegation (August 2005).

The Board believes it is important to share its expertise nationally and internationally. Consequently, the NEB is active in the organization of, and has made presentations at, major industry events including:

- the International Pipeline Conference (held every 2 years with the next event taking place in September 2006);
- the Banff Pipeline Workshop (last held in April 2005);
- the United Nations Economic Commission for Europe forum on pipeline accidents (last held in Berlin in June 2005);
- the Rio Pipeline Conference (last held in October 2005); and
- the CSA Z662 Biennial Forum (held in Calgary in November 2005).

The NEB holds co-chair positions on the organizing and technical committees planning the International Pipeline Conference to be held in Calgary in September 2006. The Board is also actively involved in the American Society of Mechanical Engineers Pipeline Systems Division, an international organization dedicated to the dissemination of pipeline technology throughout the world.

Relevant Canadian standards are incorporated by reference into the Board' regulations. The Board is actively engaged in committee work in support of the CSA Z662 Standard on Oil and Gas Pipelines, CSA Z276 Standard on Liquefied Natural Gas, CSA B51 Standard on Pressure Equipment, and ISO/ TC 67 – Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries.

The NEB has a wide variety of specialized expertise which is applied in many facets of the Board's operations. For example, in 2005, Board staff applied contaminated site expertise to assess progress of remediation and reclamation work associated with the 1996 Yukon Pipelines Ltd. pipeline and facility abandonment, and to work with the company and other regulators toward the eventual successful remediation of the sites.

Research and Development

Research and development in the pipeline industry is international in nature. The Board actively monitors research and development by participating in organizations such as NRCan's Panel on Energy Research and Development and the Materials Technical Advisory Committee of the CANMET Technology Centre in Ottawa, and through interaction with the U.S. Pipeline and Hazardous Materials Safety Administration (formerly the U.S. Office of Pipeline Safety).

The Environmental Studies Research Fund (ESRF) provides funding for environmental and social projects pertaining to decision-making related to petroleum exploration, development and production activities on non-accord frontier lands. The NEB chairs and provides technical and administrative resources for the ESRF Management Board, which includes members of industry, the government and the public. In 2005, the Management Board approved 23 new studies, continued to provide funding to others that were previously approved, and participated in updating the CSA Standard for Offshore Structures. ESRF reports can be ordered through the ESRF Internet site at www.esrfunds.org.

ECONOMIC EFFICIENCY

ne of the NEB's corporate goals is that Canadians derive the benefits of efficient infrastructure and energy markets as a result of NEB actions. There are three main components to the Board's economic regulation program:

- efficient energy transportation infrastructure;
- efficient and informed energy markets; and
- efficient and effective regulatory processes.

"Canadians benefit from efficient energy infrastructure."

EFFICIENT ENERGY TRANSPORTATION INFRASTRUCTURE

The Board influences the energy transportation system through its decisions and orders on pipeline facilities and tolls, and on international power line facilities. With respect to the pipeline infrastructure, the Board relies on three measures to assess the functioning of the system:

- adequacy of pipeline infrastructure;
- shipper satisfaction with services; and
- the ability of pipelines to attract capital to maintain and finance the system.

The Board monitors transportation markets for the utilization and adequacy of pipeline capacity, including monitoring the degree of apportionment on major oil pipelines. For energy markets to work well there has to be adequate transportation capacity to move crude oil, refined products, natural gas and natural gas liquids from producing areas to the end-users. When there is adequate transportation capacity between the production and consuming market regions, commodity prices will be connected and the price differential will be less than or equal to the cost of transportation between the two points.

Crude Oil

A lack of adequate oil pipeline capacity occurs when shippers request transportation of more oil or oil products than the pipeline can carry. This normally results in a situation referred to as apportionment, under which each of the shippers that requested a volume is "apportioned" a share of the available capacity.

In 2005, Enbridge Pipeline operated at about 74 percent of capacity, with the actual throughput averaging 215 900 m³/d (Figure 16). Although overall capacity was adequate, growing supply of heavy crude production and declining light crude production resulted in a tightness of heavy crude capacity. In response, in November Enbridge initiated a swap in service between Lines 2 and 3. This swap will bring about a net gain of 39 000 m³/d of heavy oil capacity by converting

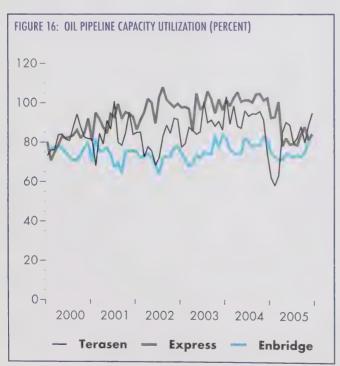




Line 3 from light oil service to heavy oil service and a net loss of 18 400 m³/d of light capacity by converting Line 2 from heavy oil to light oil service. There was some apportionment on Enbridge's Line 96 in the beginning of the year but it operated, on average, at 80 percent of capacity throughout the year.

In the first quarter 2005, Enbridge filed two applications for approval to recover tolls in conjunction with two pipeline reversal projects in the U.S. These projects resulted in the extension of oil transportation service into new markets south of Chicago and into the U.S. Gulf Coast, respectively, and will help Canadian producers market the growing supply of heavy crude oil. For more details see *Application Highlights*.

The Terasen Pipelines (Trans Mountain) Inc. (TPTM) system operated at around 95 percent of capacity based on a combined light and heavy crude capacity of 35 750 m³/d. Measuring throughput strictly against nameplate light



6. Enbridge's crude oil pipeline from Montreal, Quebec to Sarnia, Ontario

crude oil capacity (Figure 16), TPTM operated at 78 percent. However, apportionment has been occurring on this pipeline as an increase in transportation of heavier crude volumes decreased available light capacity. In 2005, the Board approved a capacity expansion of 5 560 m³/d, which should help to alleviate the apportionment issue on the TPTM system. For more details see *Application Highlights*.

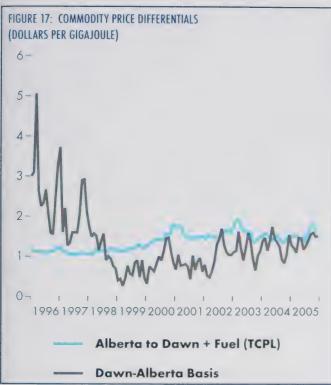
Express Pipeline Ltd.'s capacity expansion of 17 500 m³/d to 44 800 m³/d was completed in April 2005. Following the expansion, the line operated on average at 85 percent capacity (Figure 16).

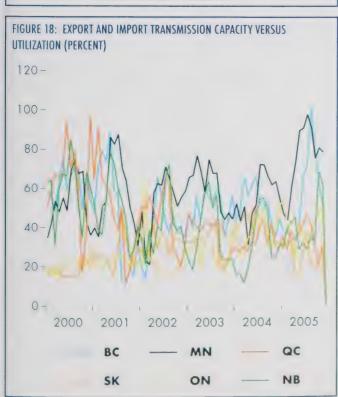
Because of the growing interest in non-conventional oil sands supply, which continued throughout 2005, further expansion of oil sands development is expected. Therefore, the NEB expects to receive more applications for oil pipeline expansions to accommodate this growth and mitigate potential oil pricing disconnects.

Natural Gas

In contrast to oil production, natural gas production has been fairly constant since 2001, while Alberta's consumption of natural gas has been increasing. Hence, there has generally been adequate capacity on natural gas pipelines to transport gas from the WCSB to markets in Canada and the U.S.

Figure 17 shows the basis, or the difference in gas prices between the Alberta border and the Dawn delivery point in southwestern Ontario. It also compares the price difference with the firm service toll (including fuel costs) between these two points on the TransCanada Pipelines system, the largest natural gas transmission system in Canada. The fact that the price difference is typically lower than the firm service transportation toll shows that there is adequate capacity in place. The Board tracks similar charts for other Canadian gas pipeline corridors and is satisfied that there is generally sufficient natural gas pipeline capacity.





Electricity

Adequate electric power transmission facilities support functioning electricity markets by providing access to multiple generation sources, enabling inter-regional trade, and enhancing reliability. Over the last few years, transmission infrastructure in Canada has had sufficient capacity to enable exports and imports as illustrated by the percent of capacity utilization on the system (Figure 18). In 2005, there were two applications filed with the Board concerning transmission infrastructure. The details are available in the *Application Highlights* section.

Pipeline Services Survey

In February 2005, the NEB conducted a survey of shippers on 10 major NEB-regulated pipeline companies. The objective was to get feedback on the level of satisfaction with the services provided by major pipelines and the Board's role in creating an appropriate economic regulatory environment. In May 2005, the Board published a summary of the aggregate results, which included the industry average and distribution of responses for each question and a summary of some major themes. It is available at www.neb-one.gc.ca/Publications/SurveyResults/PipelineServicesSurveyMay2005_e.htm.

The key results of the survey were:

- overall, shippers are reasonably satisfied with services provided by pipelines and the NEB;
- physical reliability of pipeline operations was rated highest by shippers; and
- toll competitiveness was rated lowest.

In addition, in the Canadian Hydrocarbon Transportation System, published by the Board in August 2005, the Board concluded that NEB-regulated pipeline companies are financially sound. While recognizing that pipeline companies have not had to raise large amounts of capital in recent years, the Board's survey of the investment community revealed that it believes pipeline companies

should have no difficulty in raising capital to maintain their systems and finance most major projects at this time.

Overall, the survey found that the hydrocarbon transportation system functioned very well in 2005, as it reliably delivered over \$100 billion of oil, petroleum products, natural gas and natural gas liquids to Canadians and export customers.

EFFICIENT AND INFORMED ENERGY MARKETS

For markets to work well, market participants require access to reliable unbiased information. The Board strives to assist the market by providing data and analysis on a wide range of topics, including energy export volumes and prices; developments in natural gas, oil and electricity markets; assessments of the supply and future deliverability of natural gas and oil; and periodic long-term outlooks for Canada's energy future.

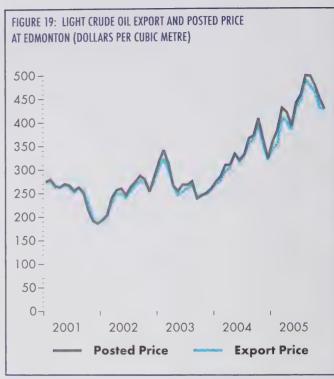
The Board continually monitors Canadian energy markets to ensure that Canadians have access to Canadian-produced oil, natural gas and electricity on terms and conditions that are no less favourable than those available to export customers.

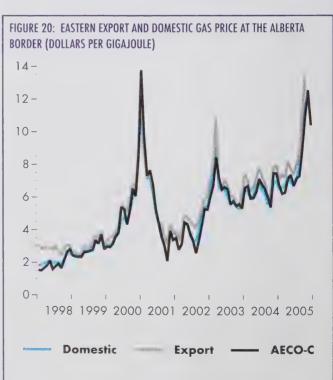
Crude Oil

In 2005, the crude oil market functioned so that Canadians had access to Canadian crude oil on price terms at least as favourable as export customers (Figure 19).

Natural Gas

In 2005, domestic prices at AECO-C, the main pricing point for natural gas in Alberta (when netted forward by adding the transportation cost to the Alberta border) were usually equal to or lower than natural gas prices at export points in eastern Canada (when netted back to the Alberta border) (Figure 20). This confirms that Canadians are paying no more for natural gas than export customers for gas purchased in Alberta and suggests economic efficiency in the natural gas market.





The relatively small number of buyers and sellers in the British Columbia and Maritimes gas markets presents a greater challenge for monitoring the equivalency of domestic and export natural gas pricing. The NEB continues to track prices and monitor these markets to ensure economic efficiency prevails.

Electricity

The Board also monitors electricity markets, although this presents some challenges because of the regional nature and operational structure of electric power markets. However, residential electricity prices are generally considerably lower in Canada than in nearby cities in the United States.

Energy Market Reports

In its role of monitoring energy markets and providing information that helps Canadians and suppliers make informed decisions, the Board prepares several publications and statistical reports that pertain to all major energy commodities including oil, natural gas, natural gas liquids and electricity. Where appropriate, the Board has included recommendations to decision-makers on issues relevant to the analysis. Stakeholder and public input is used to develop and improve the NEB's ongoing Energy Market Assessment (EMA) program. In 2005, the following EMA reports were produced:

- Outlook for Electricity Markets 2005-2006 provides
 a discussion and analysis of generation, demand,
 prices, infrastructure additions, and inter-regional
 and international trade for the electricity market.
 It also includes an update of electricity industry
 restructuring activities in Canada and identifies
 and discusses current issues that may have a
 long-term effect on the Canadian electricity
 sector.
- Short-term Outlook for Canadian Crude Oil to 2006 presents an 18-month outlook on prices, supply and markets for Canadian crude oil and petroleum products. It identifies recent developments and existing opportunities and challenges facing the oil industry.

- Short-term Canadian Natural Gas Deliverability 2005-2007 describes the NEB's estimate of deliverability over the next two years. Deliverability of conventional gas in western Canada is expected to decline slightly, but should be more than offset by growing output of NGC. Deliverability of natural gas from the east coast offshore is expected to remain relatively stable until 2007 when a compression increase should boost output. Overall, Canadian deliverability is expected to increase by roughly three percent over the period.
- Short-term Outlook for Natural Gas and Natural Gas Liquids to 2006 is the first EMA that presents a combined short-term analysis and outlook for natural gas and NGLs. The report indicates that Canadians will be facing high and volatile natural gas prices over the outlook period. While high gas prices have benefited Canadian economic growth, increases in energy costs present a challenge for consumers and the industrial sector, including both the NGL extraction and petrochemical sectors.
- Alberta's Ultimate Potential for Conventional Natural Gas (joint study with EUB) estimates the total potential of marketable conventional gas using the improved geological understanding obtained through the almost 25 percent increase in wells drilled since the base year of the NEB's last study.
- Canadian Hydrocarbon Transportation System:
 Transportation Assessment provides an assessment
 of how the Canadian hydrocarbon transportation
 system is currently functioning and sets out
 the framework the Board will use for future
 assessments.

EFFICIENT AND EFFECTIVE REGULATORY PROCESSES

The NEB enables regulated companies to develop responsible infrastructure through efficient and responsive regulatory processes. The NEB works to provide a transparent and predictable regulatory system in keeping with the federal government's Smart Regulation strategy and the NEB's commitment to goal-oriented regulation. The NEB is committed to working with other regulatory agencies to harmonize and rationalize regulatory processes and seeks feedback from stakeholders to help it be proactive in providing fair and timely outcomes.

In 2005, the Board continued to move forward with its approach to smart regulation by:

- advancing the use of goal-oriented regulation;
- processing applications in an efficient and timely manner and diligently fulfilling its responsibility to protect the public interest;
- involving Canadians in numerous forums about regulatory development and energy markets;
- reviewing its processes, engaging in dialogue with stakeholders, clarifying expectations, implementing new approaches, and preparing for major applications;
- providing tools for resolving differences outside of hearings and court proceedings (such as Appropriate Dispute Resolution); and
- negotiating with other agencies to ensure that regulatory processes are harmonized to minimize duplication.

Service Standards

In today's results-based management environment, service standards have become an essential tool for building effective citizen-focused service in organizations. In 2005, the NEB developed and published service standards (available at www.neb-one.gc.ca/publications/servicestandards_e.pdf). Service standards have been defined for many of the NEB's regulatory functions and associated services so clients know what they may expect from the NEB. The service standards identify specific delivery targets, or timelines for the following areas:

- release of hearing decisions 80 percent of its Reasons for Decisions will be completed within 12 weeks following a public hearing;
- authorizations for export of oil, gas, and natural gas liquids and import for natural gas - two working days;
- electricity export permits 80 percent completed within 75 days;
- COGO Act and CPR Act applications the Board will render a decision within 90 calendar days from the day that all information is available to begin the evaluation;
- audits OPR-99/financial 80 percent of draft audit reports will be sent to the audited company within eight weeks of field work completion;
- landowner complaints 80 percent will be resolved within 60 calendar days of receiving the initial complaint (subject to complexity of the complaint); and

 non-hearing Section 58 application cycle times- based on complexity, applications will be assigned a category and estimated date for release of decision (based on 80 percent of all applications) range from 40 calendar days for less complex applications to 120 calendar days for applications with very complex issues.

In addition, the service standard established for responses to general correspondence is 10 working days. The service standard for requests to the Board's library is one working day.

In January of 2005, the Board created three categories of service standards for non-hearing applications pursuant to Section 58 of the NEB Act. These categories depict

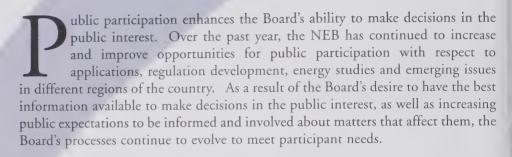
the range in complexity for those applications. To further provide regulatory clarity, the Board contacts the Applicant within ten days of receiving the application to advise them of the category assigned and expected date for the release of a Board decision. In 2005, the following results were achieved with these new service standards (Table 10).

The Board's target of 80% for Category A applications was not achieved due to resource constraints and the need to train new staff. The Board did, however, maintain an average cycle time of 34 days for that category of applications. The feedback from applicants on the implementation of these service standards has been very positive.

Category	Category Description	Service Standard	No. of Applications in 2005	Results Achieved	Average Cycle Time
А	Minor complexity of issues with no third party interests	80% completed within 40 calendar days	13	77% were completed within 40 colendar days	5.8
В	Moderate complexity of issues with possible third party interests	80% completed within 90 calendar days	42	86% were completed within 90 calendar days	49
(Major complexity of issues with likely third party interests	80% completed with 120 calendar days	1	86% were completed within 120 colendar days	110

ENGAGING CANADIANS

"The NEB fulfills its mandate with the benefit of effective public engagement."



At the NEB, engagement involves a broad spectrum of activities including exchanging information about Board matters, involving stakeholders in revising guidelines and regulations, and resolving matters between regulated companies and landowners or other parties. In 2005, the Board initiated a project to review and update the Board's objectives with respect to public and aboriginal engagement and to develop a framework for evaluating the results of engagement efforts. The evaluation framework will be completed in 2006 and will be a key tool to assist the Board in ensuring its engagement efforts meet stakeholder needs and contribute to outcomes in the public interest.



PROACTIVE ENGAGEMENT INITIATIVES

Building Engagement Approaches

In November 2005, representatives from the NEB travelled to north-central British Columbia to host open houses and share information about the Board's mandate and hearing processes. It was the Board's intention to conduct these sessions prior to the filing of any pipeline or facilities application. The timing was in response to stakeholder feedback that they would be better equipped to participate effectively in hearings if they were more knowledgeable about the NEB and its processes before the hearing occurred.

In December, the Board held a pre-hearing planning conference on the Mackenzie Gas Project in several communities in the Northwest Territories. The purpose of the conference was to hear people's views on the preliminary hearing schedule, as well as to hear comments on the overall hearing process.

Understanding how the public can and wants to be involved with NEB processes helps the Board identify effective public engagement options. In 2005 the Board asked for feedback on several NEB initiatives such as the development of goal-oriented Drilling and Production Regulations, the proposed changes to the regulation of operation and maintenance activities of NEB-regulated facilities and the electricity cost recovery review. As well, stakeholders were asked to specify how they would like to provide comments. It has been the Board's experience that participants generally value the chance to present their views in



a more informal setting with Board staff and that staff find face-to-face meetings with stakeholders particularly helpful for improving their understanding of stakeholder concerns and an efficient way to hear perspectives on process issues.

The NEB's mandate also includes providing expert technical advice to Parliament and other government departments and agencies about energy matters. One example of this is the NEB's appearance in February 2005 before the Parliamentary Standing Committee on Environment and Sustainable Development, which was studying Canada's implementation of the Kyoto Protocol. This address can be viewed at www.neb-one.gc.ca/newsroom/Speeches/2005/RSClimateChangeKyotoProtocolSCESD2005_02_24_e.htm.

This year, the NEB continued to adapt and refine existing tools to enhance public participation in its processes. To support this approach, employees across the organization have been encouraged to take training to develop the necessary skills to lead efficient and productive group sessions.

Increasing Collaboration – Alternative Processes

Over the past year, the NEB has had considerable success using alternative methods (e.g. alternatives to hearings) to help people clarify issues and resolve their differences. The NEB recognizes that less formal engagement methods (e.g. face-to-face meetings) reduce Board processing times and that discussions with stakeholders outside of or before the hearing process are more likely to generate new ideas and potential consensus among parties. The NEB's ADR team continues to provide support for unresolved land matters, promote awareness of collaborative approaches, build internal ADR capacity, and implement its evaluation framework to ensure its services continue to meet the evolving needs of Board stakeholders.

Feedback on the NEB's collaborative services offered at conferences, workshops and other meetings throughout 2005 has been consistently positive. Staff and external parties value the efficiency of well-planned, facilitated meetings, and there is an increased demand for skilled

staff to plan and facilitate meetings and workshops on a wide range of issues. In 2005, the ADR team facilitated and co-facilitated sessions at several workshops and conferences to help parties clarify objectives and develop appropriate processes and to engage participants. For example, the team facilitated the LNG Safety Workshop held in Montreal, helping the attending regulators and authorities gain a better understanding of issues and interests related to LNG.

Enhancing Aboriginal Engagement

To enhance the ability of the Board to participate in Aboriginal engagement, the Aboriginal Engagement team organized a number of initiatives over the past year. These included cultural awareness training available to all staff, regularly posted fact sheets on aboriginal history for NEB employees, improvements to a community profile database, celebrating Aboriginal Awareness Week, and advisory services for projects with potential aboriginal concerns.

In 2005, a Northern Engagement Research Project was initiated to help the NEB refine its public engagement approaches to improve responsiveness, information sharing and stakeholder contributions.

UNDERSTANDING PUBLIC ENGAGEMENT NEEDS

The NEB is able to offer effective public engagement options because it takes the time to understand how individuals want to participate in its processes. Through surveys, meetings and ongoing dialogue, the Board can better understand the needs of its stakeholders.

Survey Feedback

Web site Survey

In April 2005, the NEB launched a survey to gather feedback for redesigning its Internet site. The survey was posted on the NEB's Internet site for three weeks and covered topics such as reasons for visiting the site, readability and reliability of content, navigability and visual appeal. The NEB used the survey results, internal

focus groups, a telephone survey and a workshop session to identify NEB Internet site users' needs and lay the foundation for a project to redesign the site that will continue through 2006.

Post-Hearing Surveys

In 2005, the Board held six public hearings. Three were conducted through written proceedings and three were oral proceedings. From the feedback received, all participants agreed or strongly agreed with the statement "Overall, I was satisfied with the NEB."

Board Visits

In December 2005, Board Members traveled to the Maritimes to meet with more than a dozen parties representing a variety of interests. Over a five-day period, the Board engaged in dialogue with aboriginal groups, regulated companies, special interest groups, government departments and provincial regulatory bodies.

The meetings were designed as an informal opportunity to discuss topics of mutual interest. Some of the topics discussed were effective engagement and what it looks like, opportunities for regulatory cooperation between federal and provincial bodies, and the Board's roles and responsibilities and how it carries those out.

The Board was pleased with the dialogue that was generated. Parties expressed an appreciation for the visit and mentioned that these meetings should be held more frequently, or on a regular basis.

ADDRESSING LANDOWNER COMPLAINTS

The NEB monitors emerging technical and regulatory issues in order that its regulatory efforts are proactive, strategic and efficient. To increase its understanding of current issues related to lands and landowner engagement, the Board led a landowner engagement session at the NEB workshop in June 2005. About 75 delegates participated

with several Board Members and staff to discuss topics such as creating and maintaining relationships, successes and challenges, service standards, NEB decision processes, knowledge management, and emerging issues. Key themes from the discussion sessions included a desire for increased clarity and transparency from the Board on the status of complaints and the need to encourage and support open communication with all parties. This information was documented as part of the 2005 NEB Workshop proceedings and has been tracked for consideration when developing or improving programs.

The NEB presented the landowner complaint service standards put in place on 1 April 2005 at the workshop (Table 11).

TABLE 11: LANDOWNER COMPLAINT RESOLUTION PROGRAM - SERVICE STANDARDS

Respond With Initial Course of Action

100% within 10 calendar days

Resolve The Complaint

80% within 60 calendar days

Circumstances Affecting Resolutions⁷

Formal Board Process; Weather or Seasonal Factors

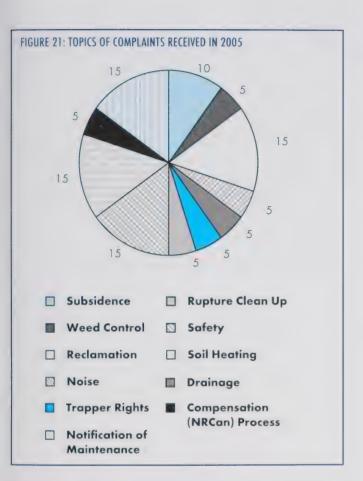
Eleven landowner complaints were received since April when the service standards were established. Ten of the 11 complaints have been closed. All 11 complaints (100 percent) met the 10-day response service standard. Nine of the ten complaints closed (90 percent) were completed within 60 days of receipt.

As part of its monitoring program, the NEB also tracks the type of landowner complaints (Figure 21).

Of the 20 landowner complaints received, the majority were resolved through inspections and staff meetings with the landowners and company representatives. Others were resolved by a Board decision.

In 2005, the NEB developed and implemented a new approach to seek feedback from landowners and company representatives regarding the resolution of landowner complaints. The Board now sends a comment card to

^{7.} Twenty percent of landowner complaints that are not resolved within 60 calendars days are primarily affected by those circumstances listed above.



participants following the closure of a file. This new tool will help the Board assess its service standards for landowner complaints and to measure and improve the Board's landowner complaint program.

COMMUNICATING WITH CANADIANS

Publications and Information Tools

Each year the NEB produces publications for its various stakeholders in both official languages. For details about documents the NEB publishes, see Supplement III. These publications are mailed to key stakeholders and are available through the NEB's Internet site and Library. Each publication contains a comment card, with postage paid, to provide the NEB with feedback.

The Board also maintains a toll-free number and fax for the use of Canadians. In 2005, 5 323 calls were received through the toll-free service.

The Board published 33 news releases over the past year for distribution to a variety of media venues as another means of getting information out to the public These releases are also available at www.neb-one.gc.ca newsroom/releases/index_e.htm.

EFFECTIVE LEADERSHIP AND MANAGEMENT

"The NEB is effective in leading its people and managing its resources."





he NEB is committed to effective leadership and management that supports a high performance organization that delivers on its commitments. The NEB focuses on accountability in terms of leadership practices and skill development and, in turn, establishes a requirement to define performance standards and measure results.

The NEB has committed to complete the design and implementation of a comprehensive Quality Management System, using the "ISO 9001:2000 Quality Management Systems - Requirements" as a guide. The Board's management system is designed to incorporate setting objectives, measuring and reporting results, reviewing effectiveness and continual improvement of processes. The implementation of the Quality Management System is supported by an enhanced planning and reporting process. In 2005, the NEB reviewed and redesigned processes to ensure its regulatory processes connect effectively in an overall "systems" approach.

During the first half of 2005, the NEB made significant progress in ensuring it has the talent and capacity needed to meet its goals now and in the future. Effective communication with employees about the contribution they can make toward achieving success is critical. Throughout 2005, the Board used a variety of tools to communicate intentions to all NEB staff members. The employee performance management program at the NEB was enhanced so employee performance can be determined using a multi-rater tool that uses consistent methods and rating scales. In addition, the leadership training program made considerable progress.

During the last half of 2005, a tightening labour market and aggressive recruitment by the energy industry created a challenge in recruiting and retaining employees in some areas. This will continue to be a challenge in the coming year. Over the last 5 years, annual turnover was approximately 8%; if current trends continue, the NEB will have an annualized turnover rate next year of 16%. Of particular concern is the impact of turnover at senior levels. Another area of concern is the loss of experienced bilingual capacity. The NEB is in the process of developing options to improve its capacity to attract and retain qualified staff, and where necessary will seek Treasury Board support for changes.

The NEB's Communities of Practice program evolved further in 2005. Many NEB employees are members of discipline-focused networks and communities of practice. The NEB is committed to expanding its capacity as an expert regulator. These groups meet regularly to debate issues relevant to their discipline, discuss best and emerging practices and regulatory direction, and collaboratively develop innovative solutions to challenges.

The NEB is committed to excellence in project management and in 2005 set up a Project Management Office. The first order of business was to put in place

standardized project initiation documents and project charters to ensure alignment with strategic direction and best possible return on investment.

The NEB made significant progress on a Records Renewal Program, which will ensure appropriate capture, storage and use of electronic and paper records. Training, policy and online guidance documents and a new Records and Document Information Management System were implemented.

In 2005, the NEB implemented the first phase of the Commodities Tracking System (CTS), thereby taking a major step forward in providing a secure e-business model for interactions with external stakeholders. This first phase of CTS now enables paperless filing of export and import statistics for NGLs, and future phases will cover all commodities (crude oil, petroleum products, natural gas and electricity). CTS was a successful pilot project for the NEB's e-business framework using "Epass", a shared government service to provide users of online government services with digital certificates so they can reliably identify themselves In future years, the NEB will also use this technology to provide a secure portal for filing applications.

The NEB took the next step in its business continuity preparedness program by implementing a secondary site for the Board's information technology services. This secondary site provides the NEB with access to mission critical business systems and data if the primary site fails. More work is planned in this area to reassess updated business systems and new or expanded business requirements.

NEB EXPENDITURES AND FINANCIAL REPORTING

The NEB's expenditures and staff levels for the last five fiscal years are illustrated in Table 13. The Government of Canada provides the funding for the NEB and recovers about 90 percent of the NEB's operating costs from companies whose facilities are regulated by the NEB. Additional information on the NEB's budgets and plans may be found in the "2004-2005 Main Estimates, Part II" and the "2004-2005 Estimates Part III – Report on Plans and Priorities", both of which are available at www.tbs-sct. gc.ca/est-pre/20042005/NEB-ONE/NEB-ONEr45_e.asp.

Fiscal Year (April 1 to March 31)	Expenditures (S000)	Full-Time Equivalents
2001 - 2002	28 836	00
2002 - 2003	31 232	937
2003 - 2004	31 189	
2004 - 2005	33 831	
2005 - 2006	35 471	
(a) Estimate		

To meet the Treasury Board's fiscal year end requirements and the cost recovery calendar year requirements, the NEB prepares two sets of annual financial statements. The first set is prepared on a fiscal year period ending 31 March using the accrual basis of accounting in accordance with Treasury Board of Canada Accounting Standards and based on the Canadian Generally Accepted Accounting Principles. These financial statements form part of the Public Accounts of Canada.

In 2004, the Board received a request from industry to review its cost recovery regulations related to electricity. In response to this request, the Board commenced a review process in consultation with the electricity sector. The Board identified the possibility of changing the current cost recovery year that is calendar year based to align with the NEB fiscal year which is 1 April to 31 March. This change would reduce the workload at the NEB and eliminate an entire year-end closing cycle from our schedule. The Board is seeking written comments from all companies under its jurisdiction.

The second set of financial statements, for cost recovery purposes, is prepared on a calendar year period using the accrual basis of accounting in accordance with Treasury Board of Canada Accounting Standards and based on the Canadian Generally Accepted Accounting Principles. These statements are audited by the Office of the Auditor General on an annual basis and are used as the basis for determining the costs recovered in accordance with the National Energy Board Cost Recovery Regulations.

Further information on either set of financial statements is available by contacting the NEB. The consolidated financial statements for the Government of Canada can be found at www.pwgsc.gc.ca/recgen/text/pub-acc-e.html. The audited financial statements for cost recovery purposes can be found at www.neb-one.gc.ca/Publications/AuditorGeneralReports/AuditorGeneralReport2004_e.pdf.

NEB AS A SEPARATE EMPLOYER

The NEB has been a separate employer since December 1992. As a Public Service separate employer, the authority to carry out certain personnel management functions has been transferred from the Treasury Board to the Chairman of the NEB. With the transfer of authority comes the responsibility for creating and maintaining an NEB classification system, developing human resource management policies and practices, and collective bargaining.

Although a separate employer, the NEB continues to be bound by federal legislation. The Board is governed by the terms of the *Public Service Employment Act* (PSEA) in respect to promotion and recruitment. Employee–employer relations are subject to the *Public Service Labour Relations Act*. In addition, the NEB is subject to public service constraints and public service wage restraints. Financial matters are governed by the *Financial Administration Act* as administered by Treasury Board. Furthermore, the NEB is bound by the provisions and standards set out in the *Official Languages Act* and the *Employment Equity Act*.

In 2005, the NEB began implementation of the changes associated with the PSEA, which took effect 31 December 2005. While central agencies, including the Canada School of the Public Service and Treasury Board, have responsibility to communicate all changes and provide an education program for management and Human Resources practitioners, the NEB itself had to undertake NEB-specific policy development and change management. The new PSEA will generally provide the NEB with more flexibility and accountability in staffing processes.

COMMUNITY INVOLVEMENT AND SUPPORT

The NEB recognizes the importance of community support and involvement and encourages staff to participate in, contribute to, and volunteer with various agencies, programs and non-profit groups. The Board promotes this in a number of ways, including:

- partnering with employees to support a variety of community agencies through United Way contributions;
- providing gifts-in-kind of used binders and computers to local schools (through the Computers for Schools program) and to other organizations in need of educational supplies;
- encouraging employees to start or participate in various funding drives for local and national agencies; and
- offering staff health and wellness sessions, during which time guest speakers are invited in to speak about current issues, family support, and charity information.

In 2005, NEB staff participated in several initiatives, including the United Way workplace campaign and Adopt-A-Family, with proceeds going to the Discovery House for much needed supplies. Staff also participated in Operation Christmas Child, Amble with Angus for the Calgary Food Bank, the Banff Ekiden Run, the Kananskis 100-mile Relay and numerous other activities to support the local community.

A WEALTH OF EXPERIENCE

CHAIRMAN

Kenneth W. Vollman

A native of Saskatchewan, Mr. Vollman has a Master's degree in Mechanical Engineering from the University of Saskatchewan and is a member of the Association of Professional Engineers of Alberta.

Mr. Vollman has spent his career working in the energy sector gaining his practical experience with oil and gas production while working in the private sector. During his career at the NEB, Mr. Vollman gained experience in energy supply and demand, pipelines, energy regulatory issues and management. In 1998, he was designated as Chairman after serving as a Member and Vice-Chairman.

Over the past 35 years, Mr. Vollman has authored and presented numerous papers at Canadian and international conferences.



Gaétan Caron

Originally from Québec City, Mr. Caron obtained his Bachelor of Rural Engineering degree from Laval University and his Master of Business Administration degree from the University of Ottawa.

Mr. Caron joined the NEB in 1979, where he has held several senior positions. Prior to his appointment as a Board Member in 2003, he held the position of Chief Operating Officer. He was designated Vice-Chairman in 2005.

Mr. Caron is a member of several organizations including the Association of Professional Executives of the Public Service of Canada, the Quebec Order of Engineers and the Board of Directors of the Calgary United Way.

MEMBERS

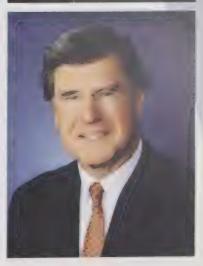
Rowland J. Harrison, Q.C.

Originally from Australia, Mr. Harrison has a Master of Laws degree from the University of Alberta and is a member of the bars of Nova Scotia, Ontario and Alberta. He has gained extensive advisory, consulting and research experience in various aspects of energy regulation and policy during his career.

As a Professor of Law at various Canadian universities, Mr. Harrison taught Oil and Gas Law, Advanced Petroleum Law, Constitutional Law and Administrative Law. He has held senior management positions with a number of organizations including













Canada Oil and Gas Lands Administration, the Canadian Institute of Resources Law, the Institute for Research on Public Policy and the Dalhousie Institute of Environmental Studies. Before his appointment to the Board, he was a partner in the Calgary office of Stikeman Elliott, a national and international Canadian law firm.

John S. Bulger

Originally from Manitoba, Dr. Bulger has a Ph.D. in Physical Chemistry from York University in Toronto, as well as a Graduate Management Diploma from McGill University in Montreal. He has experience in procurement, operations, planning, regulatory affairs and providing advice on energy issues.

Prior to being appointed to the Board, he held the position of Senior Manager, Regulatory Affairs at Maritimes and Northeast Pipeline in Halifax, Nova Scotia. He also spent almost 20 years at Gaz Métropolitain in Montreal, Quebec in various senior management positions. He began his career at DuPont of Canada Ltd.

Dr. Bulger is a member of the Chemical Institute of Canada.

Elizabeth (Liz) Quarshie

Originally from Ghana, Ms. Quarshie has a Master's degree in Business Administration from the University of Saskatchewan and a Master of Science degree in Environmental Engineering from Washington State University. She is a member of the Association of Professional Engineers and Geoscientists of Saskatchewan and is a Certified Professional Environmental Auditor.

Ms. Quarshie has more than 15 years experience in the energy sector and has held a portfolio of senior management positions at Cogema Resources Inc. and Cameco in Saskatoon, and directed programs such as occupational health and safety, environmental impact assessments, compliance and corporate affairs. She also has extensive industry experience in project planning and design, development, implementation, monitoring and decommissioning.

Ms. Quarshie also has experience in radiation protection, air pollution control, solid and hazardous waste management, water and wastewater treatment, research and evaluation, environmental management systems, audits and community development.

Deborah W. Emes

Originally from Saskatchewan, Ms. Emes has a Master of Arts in Economics from the University of Calgary and is a Chartered Financial Analyst. She has practical and academic expertise in providing regulatory, economic and market advice.

Ms. Emes has held positions in the public and private sectors, including Manager, Strategic Services for the British Columbia Utilities Commission. She has also taught rate design and cost of capital training seminars for the Canadian Association of Members of Public Utility Tribunals.

Carmen L. Dybwad

A native of Saskatchewan, Dr. Dybwad has a Ph.D. in Regional Planning and Resource Development from the University of Waterloo. She has an educational background in economics as well as practical and academic expertise in public participation, resource development and the electricity sector.

Dr. Dybwad has held several positions with the Government of Saskatchewan and the Saskatchewan Power Corporation, including Manager of Environmental Policy and Planning. Most recently, she was an assistant professor at the University of Regina where she taught classes in ecological economics, sustainable development and public administration.

Dr. Dybwad is a volunteer with the Wood's Homes Foundation and a member of the Alberta Arbitration and Mediation Association.

Patricia McCunn Miller

Patricia McCunn Miller was appointed to the National Energy Board as a full Board Member on May 2nd, 2005 for a seven year term. She is a lawyer, specializing in energy, environment, corporate social responsibility and regulatory matters, and has served as Vice Chair of the National Round Table on the Environment and the Economy (NRTEE). She has also chaired NRTEE Task Forces on Emissions Trading, as well as Energy and Climate Change. Ms. McCunn Miller currently co-chairs the Task Force on Capital Markets & Sustainability. She also sits as a Director of Climate Change Central (C3) in Alberta and chairs C3's Governance Committee.

Ms. McCunn Miller is a former Vice-President of Environment and Regulatory Affairs for EnCana Corporation (formerly PanCanadian Energy) and has also held the positions of Vice-President and General Counsel at Alberta's electric transmission administrator, and General Counsel and Corporate Secretary of the Alberta Petroleum Marketing Commission.

Ms. McCunn Miller, who received a Bachelor of Laws degree from the University of Ottawa in 1982, has been actively involved in numerous organizations as chair or director, including the Canadian Petroleum Law Foundation and the Association of General Counsel of Alberta. She continues to enhance her background in governance issues as a member of the Institute of Corporate Directors (ICD) and has graduated from the ICD Corporate Governance College Directors Education Program.









TEMPORARY MEMBERS

David Hamilton

Originally from Scotland, Mr. Hamilton has a Master's degree in Leadership and Training from the Royal Roads University, Victoria, British Columbia. Mr. Hamilton has more than 30 years of experience working in Northwest Territories in the development of people and communities through both the parliamentary and democratic processes.

Mr. Hamilton was Deputy Minister and Clerk of the Legislative Assembly of the Northwest Territories for 20 years. He also held the appointment as Chief Electoral Officer for the Northwest Territories. Mr. Hamilton administered the first general election for Members to the Legislative Assembly in Canada's two new Territories, Nunavut and the Northwest Territories, following division of the NWT in 1999. Mr. Hamilton participated in the ratification votes for the Gwich'in Land Claim Agreement, the Sahtu Settlement Agreement and the Inuit Land Claim Settlement.

Mr. Hamilton has been involved in the electoral process in Canada for over 30 years and has extensive experience in community development.

Jim Donihee

Mr. Donihee was appointed Chief Operating Officer of the Board on 17 November 2003. Reporting directly to the Chairman, he is responsible for all operational and support functions of the National Energy Board; accountable for the development, execution and delivery of results identified in the Board's Strategic Plan; accountable for business relationships with Canada's energy ministries and to foster strong relationships with all principal stakeholders of the NEB.

Mr. Donihee served in the Canadian Forces for over twenty-seven years as an operational pilot, where he gained leadership experience leading groups ranging in size from 30 to 3000 people in dynamic task and performance oriented organizations. He has extensive experience in process re-engineering and change management. Retiring as Colonel from the Canadian Forces, Mr. Donihee worked in the energy industry where he introduced Knowledge Management and led initiatives that fostered organizational effectiveness, including Knowledge Exchange, leadership development and performance management.

Mr. Donihee earned a Bachelors degree in Business Administration and Computer Science from the Collège Militaire Royal in St-Jean, Quebec. He was awarded the Order of Military Merit by her Excellency the Governor General of Canada, The Right Honorable Adrienne Clarkson.

Mr. Donihee was appointed Temporary Member on May 19, 2005 for a period of two years.

LEGISLATION UNDER WHICH THE NEB HAS NAMED RESPONSIBILITY

ACTS

National Energy Board Act Canada Labour Code, Part II Canada Oil and Gas Operations Act Canada Petroleum Resources Act Canadian Environmental Assessment Act Energy Administration Act Mackenzie Valley Resource Management Act Northern Pipeline Act Species at Risk Act

REGULATIONS AND ORDERS PURSUANT TO THE NATIONAL ENERGY **BOARD ACT**

National Energy Board Act Part VI (Oil and Gas) Regulations

National Energy Board Cost Recovery Regulations

National Energy Board Electricity Regulations

National Energy Board Export and Import Reporting Regulations

National Energy Board Gas Pipeline Uniform Accounting Regulations

National Energy Board Oil Pipeline Uniform Accounting Regulations

National Energy Board Oil Product Designation Regulations

National Energy Board Onshore Pipeline Regulations, 1999

National Energy Board Order No. M0-62-69

National Energy Board Pipeline Crossing Regulations, Part I

National Energy Board Pipeline Crossing Regulations, Part II

General Order No. 1 Respecting Standard Conditions for Crossings by

Pipelines

General Order No. 2 Respecting Standard Conditions for Crossings of **Pipelines**

National Energy Board Power Line Crossing Regulations

National Energy Board Processing Plant Regulations

National Energy Board Rules of Practice and Procedure, 1995

National Energy Board Substituted Service Regulations

Pipeline Arbitration Committee Procedure Rules, 1986

Regulations amending the National Energy Board Cost Recovery Regulations (21 October 2002)

Section 58 Streamlining Order XG/XO-100-2002

Toll Information Regulations

GUIDELINES, GUIDANCE NOTES AND MEMORANDA OF GUIDANCE PURSUANT TO THE NATIONAL ENERGY BOARD ACT

Appropriate Dispute Resolution Guidelines (18 July 2003)

Implications of Supreme Court of Canada Decision on the National Energy Board Consultation with Aboriginal People (3 August 2005)

Consultation with Aboriginal People – Generic Information Request (3 April 2002)

Filers Guidelines to Electronic Submissions (1 December 2004)

Filing Manual (2004)

Filing of Supply Information in Compliance with the Board's Part VI (Oil and Gas) Regulations (16 May 1997)

Financial Regulatory Audit Policy of the National Energy Board (23 February 1999)

Guidance Notes for the *Onshore Pipeline Regulations*, 1999 (7 September 1999)

Amendment I (20 January 2003)

Amendment I (20 January 2003)

Guidance Notes for Pressure Equipment under National Energy Board Jurisdiction (8 August 2003)

Guidance Notes for the Design, Construction, Operation and Abandonment of Pressure Vessels (3 July 2003)

Guidance Notes for the Design, Construction, Operation and Abandonment of Pressure Vessels and Pressure Piping (3 July 2003)

Guidance Notes for the *Processing Plant Regulations* (28 July 2003) including: Appendix I – Guidance Notes for the Design, Construction, Operation and Abandonment of Pressure Vessels and Pressure Piping (3 July 2003) and Appendix II – Security and Emergency Preparedness and Response Programs (24 April 2002)

Guidelines for Negotiated Settlement of Traffic, Tolls and Tariffs (12 June 2002)

Guidelines Respecting the Environmental Information to be Filed by Applicants for Authorization to Construct and Operate Gas Processing and Straddle Plants, Liquid Natural Gas (LNG) Plants and Terminals, Natural Gas Liquids (NGL), Liquid Propane Gas (LPG) and Butane Plants and Terminals, under Part III of the National Energy Board Act (26 June 1986)

Information to be Furnished by Applicants to Import LNG – Letter and Guidance Document (20 September 2005)

Model Conditions for International Power Line Certificates of Public Convenience and Necessity (23 December 2004)

Memorandum of Guidance – Electronic Filing, National Energy Board Rules of Practice and Procedure, 1995 (21 March 2002)

Memorandum of Guidance – Concerning Full Implementation of the September 1988 Canadian Electricity Policy (Revised 23 January 2003)

Memorandum of Guidance – Fair Market Access Procedure for the Licensing of Long-term Exports of Crude Oil and Equivalent (17 December 1997)

Memorandum of Guidance – Regulation of Group 2 Companies (6 December 1995)

Memorandum of Guidance – Retention of Accounting Records by Group 1 Companies Pursuant to Gas/Oil Pipeline Uniform Accounting Regulations (30 November 1994)

National Energy Board Pre-Application Meetings Guidance Notes (26 February 2004)

Notice of Proposed Regulatory Change 2005-01 – Pipeline Security Management Programs (14 September 2005)

Operations and Maintenance Activities on Pipelines Regulated under the *National Energy Board Act*: Requirements and Guidance Notes (7 July 2005)

REGULATIONS PURSUANT TO THE CANADA OIL AND GAS OPERATIONS ACT

Canada Oil and Gas Certificate of Fitness Regulations

Canada Oil and Gas Diving Regulations

Canada Oil and Gas Drilling Regulations

Canada Oil and Gas Geophysical Operations Regulations

Canada Oil and Gas Installations Regulations

Canada Oil and Gas Operations Regulations

Canada Oil and Gas Production and Conservation Regulations

Oil and Gas Spills and Debris Liability Regulations

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE CANADA OIL AND GAS OPERATIONS ACT

Guidance Notes for the Canada Oil and Gas Drilling Regulations

Guidelines Respecting Physical Environmental Programs during Petroleum Drilling and Production Activities on Frontier Lands

Notice of Revised Offshore Waste Treatment Guidelines (21 August 2002)

REGULATIONS PURSUANT TO THE CANADA PETROLEUM RESOURCES ACT

Environmental Studies Research Fund Regions Regulations

Frontier Lands Petroleum Royalty Regulations

Frontier Lands Registration Regulations

Lancaster Sound Designated Area Regulations

Order Prohibiting the Issuance of Interests at Lapierre House Historic Site in the Yukon Territory

Order Prohibiting the Issuance of Interests at Rampart House in the Yukon Territory

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE CANADA PETROLEUM RESOURCES ACT

Northwest Territories – Nunavut - Guidance Notes for Applicant - Applications for Declaration of Significant Discovery and Commercial Discovery (January 1997)

Applications for Declaration of Significant Discovery and Commercial Discovery – Directly Affected Persons (17 November 2003)

REGULATIONS PURSUANT TO THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT

Comprehensive Study List Regulations

Exclusion List Regulations

Federal Authorities Regulations

Inclusion List Regulations

Law List Regulations

Projects outside Canada Environmental Assessment Regulations

Regulations Respecting the Co-ordination by Federal Authorities of Environmental Assessment Procedures and Requirements

Canada Port Authority Environmental Assessment Regulations

REGULATIONS PURSUANT TO THE CANADA LABOUR CODE, PART II

Canada Occupational Health and Safety Regulations
Oil and Gas Occupational Safety and Health Regulations
Safety and Health Committees and Representatives
Regulations

REGULATIONS PURSUANT TO THE MACKENZIE VALLEY RESOURCE MANAGEMENT ACT

Exemption List Regulations
Mackenzie Valley Land Use Regulations
Preliminary Screening Requirement Regulations

REGULATIONS PURSUANT TO THE NORTHERN PIPELINE ACT

Northern Pipeline Notice of Objection Regulations
Northern Pipeline Socio-Economic and
Environmental Terms and Conditions for
Northern British Columbia

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Alberta

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Saskatchewan

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for Southern British Columbia

Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Swift River Portion of the Pipeline in the Province of British Columbia Order Designating the Minister of Natural Resources as Minister for Purposes of the Act

Transfer of Duties, in Relation to the Pipeline, of Certain Ministers under Certain Acts to the Member of the Queen's Privy Council for Canada Designated as Minister for Purposes of the Act

Transfer of Duties, in Relation to the Pipeline, of the National Energy Board under Parts I, II and III of the *Gas Pipeline Regulations* to the Designated Minister for Purposes of the Act

Transfer of Powers, Duties and Functions (Kluane National Park Reserve Lands) Order Transfer of Powers, Duties and Functions (Territorial Lands) Order

COMPANIES WITH FACILITIES OR ACTIVITIES REGULATED BY THE NEB

The following pipeline companies and electric power entities construct or operate interprovincial or international pipelines or power lines under the NEB's jurisdiction, as of 31 December 2005. The pipeline companies have been divided into two groups. Group 1 gas and oil pipelines are the major pipeline companies subject to active regulatory oversight by the NEB. Group 2 consists of all other pipeline companies under the NEB's jurisdiction. For purposes of cost recovery, there are three classifications for companies: large, intermediate and small. The criteria for determining a company's classification are based on its size, throughput and cost of service.

Group 1 Gas Pipelines

Alliance Pipeline Ltd.
Foothills Pipe Lines Ltd.
Gazoduc Trans Québec & Maritimes Inc.
Maritimes & Northeast Pipeline Management Ltd.
TransCanada PipeLines Limited
TransCanada PipeLines Limited, B.C. System
Westcoast Energy Inc.

Group 1 Oil and Products Pipelines

Cochin Pipe Lines Ltd.
Enbridge Pipelines Inc.
Enbridge Pipelines (NW) Inc.
Terasen Pipelines (Trans Mountain) Inc.
Trans-Northern Pipelines Inc.

Group 2 Gas Pipelines

DEFS Canada L.P.

AltaGas Pipeline Partnership

AltaGas Suffield Pipeline Inc.
AltaGas Transmission Ltd.
Apache Canada Ltd.
ARC Resources Ltd.
Bear Paw Processing Company (Canada) Ltd.
BP Canada Energy Company
Canadian Hunter Exploration Ltd.
Canadian Natural Resources Limited
Canadian-Montana Pipe Line Corporation
Centra Transmission Holdings Inc.
Champion Pipeline Corporation Limited
Chief Mountain Gas Co-op Ltd.

Devon Energy Canada Corporation

Echoex Energy Inc.

EnCana Border Pipelines Limited

EnCana Ekwan Pipeline Inc.

EnCana Oil & Gas Co. Ltd.

EnCana Oil & Gas Partnership

EnCana West Ltd.

ExxonMobil Canada Properties

Forty Mile Gas Co-op Ltd.

Huntingdon International Pipeline Corporation

Husky Oil Operations Ltd.

KEYERA Energy Ltd.

Many Islands Pipe Lines (Canada) Limited

Mid-Continent Pipelines Limited

Minell Pipeline Limited

Murphy Canada Exploration Company

Murphy Oil Company Ltd.

Nexen Inc.

Niagara Gas Transmission Limited

Northstar Energy Corporation

Omimex Canada, Ltd.

Paramount Transmission Ltd.

Peace River Transmission Company Limited

Pengrowth Corporation

Penn West Petroleum Ltd.

Petrovera Resources Ltd.

Pioneer Natural Resources Canada Inc.

Portal Municipal Gas Company Canada Inc.

Prairie Schooner Limited Partnership

Profico Energy Management Ltd.

Regent Resources Ltd.

Renaissance Energy Ltd.

St. Clair Pipelines Management Inc.

Samson Canada, Ltd.

Shiha Energy Transmission Ltd.

Sierra Production Company

Suncor Energy Inc.

Taurus Exploration Canada Ltd.

Union Gas Limited

Vector Pipeline Limited Partnership

County of Vermilion River No. 24 Gas Utility

2193914 Canada Limited

806026 Alberta Ltd.

1057533 Alberta Ltd.

Group 2 Oil and Products Pipelines

Amoco Canada Petroleum Company Ltd.

Aurora Pipe Line Company

Berens Energy Ltd.

BP Canada Energy Company

Dome Kerrobert Pipeline Ltd.

Dome NGL Pipeline Ltd.

Duke Energy Empress L.P.

Enbridge Pipelines (Westspur) Inc.

Ethane Shippers Joint Venture

Express Pipeline Limited Partnership

Genesis Pipeline Canada Ltd.

Glencoe Resources Ltd.

Husky Oil Limited

Imperial Oil Resources Limited

ISH Energy Ltd.

Montreal Pipe Line Limited

Murphy Oil Company Ltd.

NOVA Chemicals (Canada) Ltd.

PanCanadian Kerrobert Pipeline Ltd.

Paramount Transmission Ltd.

Penn West Petroleum Ltd.

Plains Marketing Canada, L.P.

PMC (Nova Scotia) Company

Pouce Coupé Pipe Line Ltd., as agent and general

partner of the Pembina North Limited Partnership

PrimeWest Energy Inc.

Provident Energy Pipeline Inc.

Renaissance Energy Ltd.

SCL Pipeline Inc.

Shell Canada Products

Shell Canada Products Limited

Sun-Canadian Pipe Line Company

Taurus Exploration Canada Ltd.

Yukon Pipelines Limited

1057533 Alberta Ltd.

Commodity Pipelines

Abitibi-Consolidated Company of Canada

E.B. Eddy Forest Products Ltd.

Fraser Papers Inc. (Canada)

Genesis Pipeline Canada Ltd.

Penn West Petroleum Ltd.

Souris Valley Pipeline Limited

Electric Power Companies

Abitibi-Consolidated Inc.

Advantage Energy, Inc.

ALLETE, Inc. d/b/a Minnesota Power

ATCO Power Canada Ltd. and Alberta Power (2000) Ltd.

Avista Energy, Inc.

Black Oak Capital, LLC.

BP Canada Energy Company

Brascan Energy Marketing Inc.

British Columbia Hydro and Power Authority

Calpine Energy Services Canada Ltd.

Canadian Transit Company

Candela Energy Corporation

Cargill Energy Trading Canada, Inc.

Cedars Rapids Transmission Co.

Chandler Energy Inc.

Cincinnati Gas & Electric Company

Citadel Financial Products S.a.r.l.

CMS Energy Resource Management Company

Columbia Power Corporation

Conectiv Energy Supply Inc.

Constellation Energy Commodities Group, Inc.

Constellation NewEnergy, Inc.

Consumers Energy Company

Coral Energy Canada Inc.

Detroit and Windsor Subway Company

Detroit Edison Company

Direct Commodities Trading (DCT) Inc.

Direct Energy Marketing Inc.

DTE Energy Trading, Inc.

Duke Energy Marketing Canada Corp.

Duke Energy Marketing Canada Ltd.

Dynegy Power Marketing, Inc.

Edison Mission Marketing & Trading, Inc.

Emera Energy Inc.

EnCana Energy Services Inc.

Engage Energy Canada, L.P.

Engage Energy US, L.P.

Enmax Energy Marketing Inc.

EPCOR Merchant and Capital Inc.

Exelon Generation Company, LLC

FortisAlberta

FortisBC Inc.

FortisOntario Inc.

Fraser Paper Inc. (Canada)

Hydro One Networks Inc.

Hydro-Québec

Independent Electricity Market Operator

Inland Pacific Energy Services Ltd.

Lighthouse Energy Trading Company, Inc.

MAG Energy Solutions Inc.

Manitoba Hydro-Electric Board

Marketing D'Énergie HQ Inc.

Merrill Lynch Commodities Canada, ULC

Merrill Lynch Commodities, Inc.

Mirant Americas Energy Marketing, L.P.

Montenay Inc.

MontWegan International Energia Resorce Inc.

Morgan Stanley Capital Group Inc.

New Brunswick Power Generation Corporation

New York Power Authority

Nexen Marketing

Northern States Power Company

NorthPoint Energy Solutions Inc.

Nova Scotia Power Inc.

NRG Power Marketing, Inc.

OGE Energy Resources, Inc.

Ontario Power Generation Inc.

Ontario Power Generation Inc./Ontario

Power Interconnected Markets Inc.

PG&E Energy Trading - Power L.P.

Powerex Corp.

PPL EnergyPlus, LLC

Public Service Company of Colorado

Rainbow Energy Marketing Corporation

Reliant Energy Services Canada, Ltd.

Saracen Merchant Energy, LP

Saskatchewan Power Corporation

Sempra Energy Trading Corp.

SESCO Enterprises Canada Ltd.
Silverhill Ltd.
Sonat Power Marketing Inc. and Sonat Power Marketing L.P.
Split Rock Energy LLC
St. Clair Tunnel Company
SUEZ Energy International
Teck Cominco Metals Ltd.
TransAlta Energy Marketing Corp. and TransAlta Energy
Marketing (U.S.) Inc.

TransCanada Energy Ltd.
TransCanada Power Marketing Inc.
UBS AG, London Branch
USGen New England Inc.
Williams Energy Marketing & Trading Canada, Inc.
WPS Canada Generation, Inc.
WPS Energy Services, Inc.

INFORMATION BULLETINS

The Board publishes information bulletins on the subjects listed below:

- The Public Hearing Process
- How to Participate in a Public Hearing
- Traffic, Tolls and Tariffs
- Electricity
- Protection of the Environment
- Pipeline Tolls and Tariffs: A Compendium of Terms
- Pipeline Safety

The Board also publishes the following brochures and booklets:

- Living and Working Near Pipelines Landowner Guide, 2005
- Excavation and Construction near Pipelines, January 2002
- A Proposed Pipeline or Power Line Project: What you need to know, 2004
- Frontier Lands: released information: geophysical/geological, ESRF, well histories: Information for the Public, June 2005

INFORMATION SERIES

The Board publishes the following information series:

- Answers to your Questions about the National Energy Board
- Library and Information Services
- Frontier Information Office
- Pipeline Regulation in Canada: A Guide for Landowners and the Public, June 2003
- Regulation of Commodity Pipelines
- Service Standards

VIDEOS

In the Public Interest is a general video about the roles and responsibilities of the NEB.

The Public Hearing Process is an educational video about the hearing process.

MAJOR DOCUMENTS PUBLISHED IN 2005

International Power Lines

New Brunswick Power Transmission Corporation
Detailed Route hearing for electricity
certificate EC-111-25
MH-1-2005
Reasons for Decision, June 2005
New Brunswick Power Transmission Corporation

Tolls and Tariffs

Enbridge Pipelines Inc.
Orders pursuant to Part IV of the NEB Act
RH-1-2005
Decision, 28 April 2005

TransCanada Pipelines Limited 2004 mainline tolls and tariff, Phase II RH-2-2004 Reasons for Decision, April 2005

Canadian Association of Petroleum Producers Review of Board Decision RH-2-2004 Phase I RH-R-1-2005 Reasons for Decision, May 2005

Coral Energy Canada Inc. and the Cogenerators Alliance Review of Board decision RH-2-2004, Phase I RH-R-2-2005 Reasons for Decision, May 2005

Enbridge Pipelines Inc. Orders pursuant to Part IV of the NEB Act RH-1-2005 Reasons for Decision, June 2005

Westcoast Energy Inc.
Certain firm service enhancements in zones 3 and 4
RHW-1-2005
Reasons for Decision, November 2005

Electricity

Constellation NewEnergy, Inc. Electricity export permits EPE-264, EPE-265 Letter Decision, 29 April 2005

Calpine Energy Services Canada Ltd. Electricity export permits EPE-266, EPE-267 Letter Decision, 27 May 2005

Manitoba Hydro Electricity export permit EPE-273 Letter Decision, 6 June 2005

TransCanada Energy Ltd.
Electricity export permits EPE-270, EPE-271
Letter Decision, 17 June 2005

Lighthouse Energy Trading Company, Inc. Electricity export permits EPE-272, EPE-274 Letter Decision, 15 July 2005

ENMAX Energy Marketing Inc. Electricity export permits EPE-277, EPE-278 Letter Decision, 7 October 2005

Manitoba Hydro
Electricity export permits EPE-268, EPE-269
Letter Decision, 27 October 2005

Other documents

National Energy Board Annual Report Pursuant to the *Access to Information Act* and the *Privacy Act* -1 April 2004 – 31 March 2005 (June 2005)

National Energy Board 2005-2006 Estimates – Part III – Report on Plans and Priorities

National Energy Board 2004 Annual Report to Parliament (March 2005)

National Energy Board Performance Report for the period ending March 31, 2005

- Regulatory Agenda, 12 Issues, 31 January 2005 to 31 December 2005
- Alberta's Ultimate Potential for Conventional Natural Gas, March 2005
- Focus on Safety and Environment: a Comparative Analysis of Pipeline Performance, 2000-2003, March 2005
- Outlook for Electricity Markets 2005-2006, June 2005
- Service Standards, July 2005
- Canadian Hydrocarbon Transportation System, August 2005
- Short-term Outlook for Canadian Crude Oil to 2006, September 2005
- Short-term Canadian Natural Gas Deliverability, 2005-2007, October 2005
- Short-term Outlook for Natural Gas and Natural Gas Liquids to 2006, October 2005

- National Energy Board Regulatory Improvement Workshop, 8 November 2004
- National Energy Board Electricity Cost Recovery Workshop: Summary of Workshop Discussion, Delta Bow Valley Hotel, Calgary, Alberta, 9 December 2004
- National Energy Board Electricity Cost Recovery Workshop: Summary of Workshop Discussion, Fairmont Queen Elizabeth Hotel, Montreal, Quebec, 2 June 2005
- National Energy Board Workshop 2005: Collaborating for Regulatory Improvement, June 6–8, 2005
- The Northern Gas Project Secretariat and National Energy Board Traditional Knowledge Workshop: Traditional Knowledge in the National Energy Board's Regulatory Process – Participant Binder, Calgary, Alberta, June 16–17, 2005

SUPPLEMENT IV

LEGAL PROCEEDINGS 2005

Appeals and Reviews

1. Sumas Energy 2, Inc. (SE2) — Appeal of Board Decision EH-1-2000 — Federal Court of Appeal

On 2 April 2004, SE2 applied to the Federal Court of Appeal for leave to appeal the Board's 4 March 2004 Decision to deny an application from SE2 to construct the Canadian portion of an international power line. The line would originate at the United States border near Sumas, Washington and end at a BC Hydro substation in Abbotsford, British Columbia. Leave was granted on 26 July 2004 and a Notice of Appeal was filed on 10 September 2004. The matter was heard by the Court from 7 November 2005 to 9 November 2005.

Decision: On 9 November 2005, the Federal Court of Appeal dismissed SE2's appeal.

 Canadian Association of Petroleum Producers (CAPP) – Review of Reasons for Decision RH-2-2004, Phase I – TransCanada Pipelines Limited (TCPL) 2004 Tolls (RH-R-1-2005)

On 12 November 2004, CAPP applied for a review of the Board's RH-2-2004, Phase I Decision concerning TCPL's 2004 Mainline Tolls. CAPP stated that the Board committed certain errors that raised a doubt as to the correctness of its decision.

Decision: With respect to regulatory costs, the Board was of the view that CAPP has not raised a doubt as to the correctness of the Phase I Decision.

CAPP withdrew the long-term incentive compensations costs (LTIC); therefore, the Board was of the view that no further consideration was required.

The Board heard oral argument with respect to the Phase I Decision authorizing Firm Transportation Service – Non-Renewable (FT-NR) to be tolled on a biddable basis. This decision was overturned. The Board found that FT-NR service is to be tolled using the same methodology as for FT with a step-down.

Coral Energy Canada Inc. and the Cogenerators Alliance — Application to Review Board Decision RH-2-2004 Phase I - TransCanada Pipelines Limited (TCPL) 2004 Tolls (RH-R-2-2005)

On 11 January 2005, Coral Energy Canada Inc. (Coral) and the Cogenerators Alliance (CA) applied for a review and variance of Board Decision RH-2-2004 Phase I on the grounds that the Board erred by inappropriately shifting the burden of proof onto intervenors and that this rendered incorrect the Board's decisions with respect to the waste heat agreements and Compressor Operating Agreement (collectively, the Agreements), and TransCanada's Operations, Maintenance and Administration costs (OM&A costs) and by failing to provide adequate reasons for its decisions.

Decision: The Board dismissed the Coral and CA application for review on the basis that no doubt as to the correctness of the Board's Decision had been raised.

4. Dene Thá First Nation — Application for judicial review

On 17 May 2005 the Dene Tha' First Nation brought an application for judicial review of the ongoing failure of the Minister of Environment, Minister of Fisheries and Oceans, Minister of Indian and Northern Affairs Canada and Minister of Transport to comply with their fiduciary and constitution duties under section 35 of the Constitution Act, 1982, to consult with and accommodate the Aboriginal and Treaty rights of the Dene Tha' First Nation in respect of the environmental and regulatory review of the Mackenzie Gas Project. The Application

also requested a number of declarations including a declaration that the Mackenzie Gas Project and proposed facilities to be built by Nova Gas Transmissions Limited to connect to the Mackenzie Valley Pipeline are a single federal work or undertaking within the meaning of section 92(10)(a) of the *Constitution Act, 1867*. Imperial Oil Resources Ventures Limited, the National Energy Board and Members of the Joint Review Panel were also named as respondents. No relief was requested from the National Energy Board.

Decision: By Federal Court Order dated 27 June 2005, a Case Management Judge was appointed. At a Case Management Conference held in Calgary, Alberta on 16 November 2005 a procedure was developed to bring the matter to hearing in June 2006.

5. Flint Hills Resources, Ltd. — Application to Appeal the Board's Decision RH-1-2005, Enbridge Pipelines Inc.

On 25 May 2005, Flint Hills Resources, Ltd. applied to the Federal Court of Appeal for leave to appeal the Board's decision on the grounds that the Board erred by exceeding its jurisdiction in the approval of the Enbridge application. The Federal Court granted leave on 30 August 2005 and the company filed its Notice of Appeal on 28 October 2005.

Decision: The matter has not yet been set down for hearing by the Federal Court of Appeal.

SUPPLEMENT V

CO-OPERATION WITH OTHER ORGANIZATIONS

The NEB co-operates with other agencies to reduce regulatory overlap and provide more efficient regulatory services.

Alberta Energy and Utilities Board

The NEB has an MOU with the EUB on Pipeline Incident Response. The agreement provides for mutual assistance and a faster and more effective response by both Boards to pipeline incidents in Alberta.

The NEB and the EUB maintained their commitment to using the common reserves database for oil and gas reserves in Alberta. Both Boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for co-operation. In 2005, the Boards released the results of their assessment of Alberta's conventional natural gas resources (Energy Market Assessment: *Alberta's Ultimate Potential for Conventional Natural Gas*, March 2005. Available at NEB Library).

Atlantic Memorandum of Understanding on concurrent offshore Environmental Assessment

On 18 February 2005, the Government of Canada (represented by various federal departments), the Government of Nova Scotia, the NEB, and the C-NSOPB signed an MOU to create a more coordinated and integrated EA and regulatory process for Nova Scotia offshore petroleum development. The work of the NEB and the other signatories to the agreement was coordinated through the Atlantic Energy Roundtable. The full name of the agreement is "Memorandum of Understanding on Effective, Coordinated and Concurrent Environmental Assessment and Regulatory Processes for Offshore Petroleum Development Projects in the Nova Scotia Offshore Area".

British Columbia Ministry of Energy and Mines

The NEB and British Columbia Ministry of Energy and Mines maintained their commitment to using a common reserves database for oil and gas reserves in British Columbia. Both Boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for co-operation. Currently the Boards are working on a new assessment of gas resources in British Columbia.

Canada Newfoundland Offshore Petroleum Board and Canada Nova Scotia Offshore Petroleum Board

The Chairs of the NEB, the C-NOPB and the C-NSOPB, together with executives from the Newfoundland, Labrador and Nova Scotia Departments of Energy and NRCan, form the Oil and Gas Administrators Advisory Council (OGAAC). The OGAAC membership discuss and decide on horizontal issues affecting their respective organizations to ensure convergence and collaboration on oil and gas exploration and production issues across Canada. The NEB, C-NOPB and C-NSOPB staff also work together to review, update and amend regulations and guidelines affecting oil and gas activities on accord lands.

NEB staff also provide technical expertise to NRCan, C-NOPB and C-NSOPB on technical matters of mutual interest, such as reservoir assessment, occupational safety and health, diving, drilling and production activities.

In 2002, the NEB and C-NSOPB signed an MOU to coordinate the regulatory review of the EnCana Deep Panuke Offshore Gas Development project.

Canadian Association of Members of Public Utility Tribunals

The Canadian Association of Members of Public Utility Tribunals (CAMPUT) is a non-profit organization of federal, provincial and territorial boards and commissions responsible for regulating electric, water, gas and pipeline utilities in Canada. Members sit on the executive committee of the association and promote education and training of members and staff of public utility tribunals. The NEB also provides information to CAMPUT and staff support for conference organization. During 2005, the NEB participated in the CAMPUT annual meeting in Saskatoon, Saskatchewan.

Canadian Environmental Assessment Agency

NEB staffare actively engaged with Canadian Environmental Assessment Agency (CEAA) matters, participating in CEAA's Senior Management Committee and acting as an observer on the Regulatory Advisory Committee. This involvement ensures effective coordination of regulatory responsibilities relating to environmental assessments.

Co-operation on the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline Project through the Northwest Territories

In 2002, the NEB, in collaboration with the boards and agencies responsible for environmental impact assessment and regulatory review of a major natural gas pipeline through the Northwest Territories, issued a co-operation plan. This plan describes how the agencies propose to coordinate their activities to ensure an efficient, flexible and timely process that reduces duplication and enhances public and northern participation in the review of a major pipeline application. The NEB's partners in the plan include the Mackenzie Valley Land and Water Board, the Sahtu and Gwich'in Land and Water Boards, the NWT Water Board, the Mackenzie Valley Environmental Impact Review Board, the Environmental Impact Screening Committee and the Environmental Impact Review Board for the Inuvialuit Settlement Region, the Inuvialuit Game Council, the Inuvialuit Land Administration, CEAA, INAC, and observers from the Deh Cho First Nation, the Government of the Northwest Territories, and the Government of Yukon.

Human Resources and Skills Development Canada

The NEB has an MOU with HRSDC to administer Part II of the *Canada Labour Code* for NEB-regulated facilities and activities and to coordinate these safety responsibilities under the COGO Act and the NEB Act. The NEB also participates in the HRSDC client satisfaction survey.

Memorandum of Understanding between the National Energy Board and U.S Federal Energy Regulatory Commission

The NEB and FERC recognize that the conduct of their responsibilities may require them to examine, regulate, or otherwise oversee interconnecting facilities or activities. In this regard both regulatory agencies recognize that appropriate coordination of efforts could promote the public interest through increased efficiency, expedited and

coordinated action on energy infrastructure projects and cost savings to both the public and regulated entities. When either agency becomes aware of a proceeding before it that may involve the other, it will notify the agency accordingly.

The agreement is in effect until 2014 unless reviewed or renewed by mutual consent.

Natural Resources Canada

In 1996, the NEB signed an MOU with NRCan to reduce duplication and increase co-operation between the agencies. This MOU covers activities such as data collection, the enhancement of energy models and special studies. The MOU was renewed in January 2000, but has since expired and a renewal is being drafted. The 1992 MOU with NRCan transfers responsibilities for administering aspects of the COGO Act and CPR Act to the NEB.

NEB and Mackenzie Valley Environmental Impact Review Board Memorandum of Understanding on Co-operative Environmental Assessment

On 23 September 2005 in Calgary, the Chairs of the NEB and the Mackenzie Valley Environmental Impact Review Board (MVEIRB) renewed an MOU on co-operative EA of NEB-regulated energy projects in the Mackenzie Valley of the Northwest Territories.

Pipeline Technical Regulatory Authorities of Canada Council

The NEB chairs a staff committee of federal and provincial technical regulators. The Pipeline Technical Regulatory Authorities of Canada Council meets regularly throughout the year to discuss pipeline safety and environmental initiatives.

Transportation Safety Board of Canada

While the NEB has exclusive responsibility for regulating the safety of oil and gas pipelines under federal jurisdiction, it shares the responsibility for investigating pipeline incidents with the Transportation Safety Board of Canada. An MOU is in place outlining the roles and responsibilities of the Boards.

U.S. Federal Energy Regulatory Commission and Comisión Reguladora de Energía of Mexico

The NEB, FERC and the Comisión Reguladora de Energía of Mexico (CRE) have a tri-lateral agreement to share information on regulatory approaches and current events, and seek to provide compatible regulatory approaches while respecting each country's legislative mandates to act in the best interest of their respective nation.

It is the intent of the three regulatory agencies to meet three times a year to promote regular exchanges of information and management approaches to enable best practices in each countries respective regulatory and internal management approaches.

United States National Association of Regulatory Utility Commissioners

Board Members regularly participate in meetings of the U.S. National Association of Regulatory Utility Commissioners, particularly with respect to developments in U.S. gas markets that may affect cross border trade in natural gas.

Yukon Territory Department of Economic Development

The NEB continues to work with Yukon officials to transfer oil and gas regulatory responsibilities per the Yukon Accord Implementation Agreement. The Board provides expert technical advice to the Yukon Territory Department of Economic Development. The NEB and the Government of Yukon signed a services agreement 6 April 2004.

SUPPLEMENT VI

LIST OF APPENDICES

The following statistical reports are published separately as Appendices to the NEB Annual Report. Electronic copies can be found at www.neb-one.gc.ca and printed versions are available from the Publications Office by calling (403) 299-3562 or 1-800-899-1265, or by sending a facsimile to (403) 292-5503 or 1-877-288-8803.

Appendix A — Conventional Energy Supply and Disposition Reports

- A1 Crude Oil and Equivalent Supply and Disposition
- A2 Estimated Established Reserves of Crude Oil and Bitumen as of 31 December 2004
- A3 Natural Gas Supply and Disposition
- A4 Estimated Established Reserves of Marketable Natural Gas as of 31 December 2004
- A5 Natural Gas Liquids Supply and Disposition
- A6 Geophysical Activity
- A7 Exploration and Development Expenditures
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- B1 Certificates Issued During 2005 Approving Oil Pipeline Facilities Including Pipeline Construction Exceeding 40 Kilometres in Length
- B2 Orders Issued During 2005 Approving Oil Pipeline Facilities Including Pipeline Construction Not Exceeding 40 Kilometres in Length
- B3 Exports of Canadian Crude Oil and Equivalent 2004 and 2005
- B4 Exports of Canadian Crude Oil and Equivalent 2001 to 2005
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Appendix C — Certificates, Orders and Licences for Gas Pipelines and Exports

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- C2 Orders Issued During 2005 Approving the Construction of Gas Pipeline Facilities Not Exceeding 40 Kilometres in Length
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- E8 Electricity Trade between the United States and Canada 2005 (by American Region/State)

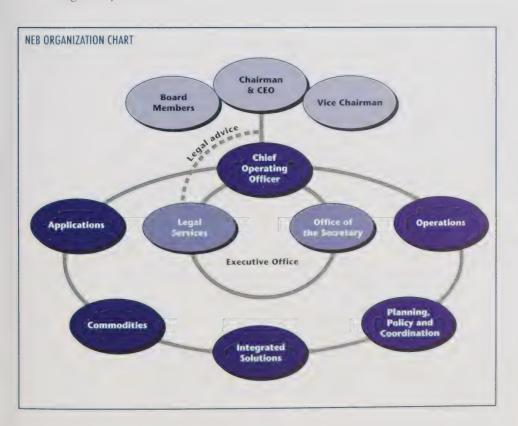
NEB ORGANIZATION

The NEB is structured into five business units, reflecting major areas of responsibility:

- Applications;
- Operations;
- · Commodities;
- · Integrated Solutions; and
- Planning, Policy and Coordination.

In addition, the Executive Office includes two other teams providing specialized services:

- Legal Services; and
- Regulatory Services.



SENIOR BOARD STAFF

Jim Donihee, Chief Operating Officer
Kathleen Beall, General Counsel
Michel Mantha, Secretary of the Board
Sandy Harrison, Business Leader, Applications
John McCarthy, Business Leader, Commodities
Valerie Katarey, Business Leader, Integrated Solutions
Gregory Lever, Business Leader, Operations
Brenda Kenny, Business Leader, Planning, Policy and
Coordination

Bonnie Gray, Project Leader, Northern Preparedness Glenn Booth, Professional Leader, Economics Alan Murray, Professional Leader, Engineering Robert Steedman, Professional Leader, Environment Charlotte Holmlund, Knowledge Exchange Officer

BUSINESS UNIT RESPONSIBILITIES

Applications

The Applications Business Unit is responsible for processing and assessing most regulatory applications submitted under the NEB Act. These fall primarily under Parts III and IV of the Act and correspond to facilities and tolls and tariffs applications and to construction and operation of international and interprovincial electric power lines. The Applications Business Unit is also responsible for other matters such as the financial surveillance and financial audits of companies under the Board's jurisdiction and for addressing landowner concerns.

Commodities

The Commodities Business Unit is responsible for energy industry and marketplace surveillance, including the outlook for the demand and supply of energy commodities in Canada, updating guidelines, and developing regulations relating to energy exports as prescribed by Part VI of the NEB Act. It is also responsible for assessing and processing applications for oil, natural gas and electricity exports.

Operations

The Operations Business Unit is accountable for safety and environmental matters pertaining to facilities under the NEB Act, the COGO Act and the CPR Act. It conducts safety and environmental inspections and audits; investigates incidents; monitors emergency response procedures; regulates the exploration, development and production of hydrocarbon resources in non-accord frontier lands; and develops related safety and environment regulations and guidelines.

Integrated Solutions

Integrated Solutions is responsible, in partnership with clients, for developing, implementing and supporting strategies and solutions to enhance business outcomes. Included in this responsibility are the areas of people, information management, finances and assets. The Integrated Solutions Business Unit includes Board-wide computer systems and services, materiel and facilities management, contracting, library services, corporate records management, financial management, human resource management, translation, and document design and production.

Planning, Policy and Coordination

The Planning, Policy and Coordination Business Unit is responsible for developing the NEB's long-term regulatory framework and regulatory tools and for organization-wide planning and coordination. The Unit provides communication, engagement (general and Aboriginal), and appropriate dispute resolution services to the Board. It also supports the Board's ongoing technical excellence through its professional leader and knowledge network services.

Executive Office

The Executive Office is responsible for the Board's overall capability and readiness to meet strategic and operational requirements including providing legal advice for regulatory and management purposes; and administering hearings; and providing regulatory support.

SUPPLEMENT VIII

LIST OF ABBREVIATIONS

ADR appropriate dispute resolution

AVC Assurance of Voluntary Compliance

BAPE Québec Bureau d'audiences publiques sur l'environnement

BC Hydro British Columbia Hydro and Power Authority

Board National Energy Board

C-NOPB Canada-Newfoundland Offshore Petroleum Board

C-NSOPB Canada-Nova Scotia Offshore Petroleum Board

CAP Corrective Action Plan

CAPP Canadian Association of Petroleum Producers

CEA Act Canadian Environmental Assessment Act

CEAA Canadian Environmental Assessment Agency

COGO Act Canadian Oil and Gas Operations Act

CPPLC ConocoPhillips Pipe Line Company

CPR Act Canada Petroleum Resources Act

CSA Canadian Standards Association

CTS Commodities Tracking System

Devon Canada Corporation

EA environmental assessment

EMA Energy Market Assessment

Enbridge Pipelines Inc.

ERO Electric Reliability Organization

ESIMS Environmental and safety information management system

ESRF Environmental Studies Research Fund

EUB Alberta Energy and Utilities Board

FERC Federal Energy Regulatory Commission

GDP Gross Domestic Product

GHG greenhouse gases

GIS Geographic Information System

HQ Hydro-Québec

HRSDC Human Resources and Skills Development Canada

HSE	health, safety and environment	NSPI	Nova Scotia Power Inc.
IMP	integrity management program	O&M	operation and maintenance
INAC	Indian and Northern Affairs	OPA	Ontario Power Authority
	Canada	OPEC	Organization of Petroleum
IORVL	Imperial Oil Resources		Exporting Countries
1	Ventures Limited	OPR-99	Onshore Pipeline Regulations, 1999
km	kilometre	2024	
kV	kilovolt	PSEA	Public Service Employment Act
LNG	liquefied natural gas	PSMA	Pipeline Security
m3	cubic metre		Management Assessment
m3/d	cubic metres per day	Régie	Régie de l'énergie
MISO	Midwest Independent	RFP	requests for proposal
	System Operator	RTO	regional transmission organization
mm	millimetre	Sea Breeze	Sea Breeze Power Corp.
MOU	Memorandum of Understanding	TransCanada	TransCanada PipeLines Limited
MW	megawatt	TSB	Transportation Safety Board of
NEB or Board	National Energy Board		Canada
NEB Act	National Energy Board Act	TPTM	Terasen Pipelines (Trans Mountain)
NGC	natural gas from coal	TWh	Terawatt hour
NGLs	natural gas liquids		
NGPS	Northern Gas Project Secretariat	WCSB	Western Canada Sedimentary Basin
NRCan	Natural Resources Canada	Westcoast	Westcoast Energy Inc.
NBSO	New Brunswick System Operator	WTI	West Texas Intermediate

METRIC CONVERSION TABLE

The Board uses the International System of Units. The energy content of a 30-litre tank of gasoline is approximately one gigajoule. A petajoule is one million gigajoules. On average, Canada consumes about one petajoule of energy every 50 minutes for all uses (heat, light and transportation).

The following conversion table is provided for the convenience of readers who may be more familiar with the Imperial System.

APPROXIMATE CONVERSION FACTORS

metre = 3.28 feet

kilometre = 0.62 mile

hectare = 2.47 acres

cubic metre of oil = 6.3 barrels

cubic metre of natural gas = 35.3 cubic feet

gigajoule = 0.95 thousand cubic feet of natural gas at

1 000 Btu per cubic foot or 0.165 barrels of oil,

or 0.28 megawatt hours of electricity

gigajoule = 10° joules

petajoule = 10¹⁵ joules

gigawatt hour = 10⁶ kilowatt hours

terawatt hour = 10° kilowatt hours











National Energy Board Office national de l'énergie

2006 ANNUAL REPORT

TO PARLIAMENT

Canada

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Office of the Chairman

Bureau du Président

20 March 2007

The Honourable Gary Lunn, P.C., M.P. Minister of Natural Resources
580 Booth Street, 21st Floor
Ottawa, Ontario
K1A 0E4

Dear Minister:

Annual Report 2006

I am pleased to submit the Annual Report of the National Energy Board for the year ending 31 December 2006, in accordance with the provisions of Section 133 of the National Energy Board Act. R.S.C. 1985, c. N-7.

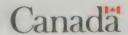
Yours truly,

Kenneth W. Vollman

Chairman

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NATIONAL ENERGY BOARD STRATEGIC PLAN 2007-2010

VISION

The NEB is an active, effective and knowledgeable partner in the responsible development of Canada's energy sector for the benefit of Canadians.

PURPOSE

We promote safety and security, environmental protection and efficient energy infrastructure and markets in the Canadia public interest⁽¹⁾ within the mandate set by Parliament in the regulation of pipelines, energy development and trade.

VALUES

At the NEB we strive for excellence in all that we do. Excellence at the NEB is driven by organizational and personal commitment to three key corporate values:

- · Integrity: We are fair, transparent, and respectful.
- Regulatory Leadership: We are responsive, proactive and innovative.
- · Accountability: We support and hold each other accountable to deliver timely, high quality results in the Canadian public interest.

STRATEGIES

- Improve regulatory processes
- Enhance NEB capacity and culture
- Inform Canadians on energy markets

II) The public interest is inclusive of all Canadisos and refers to a balance of economic, environmental and social interests that changes as society's values and materences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various



GOAL 1

NEB-regulated facilities and activities are safe and secure, and are perceived to be so.

GOAL 2

NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected.

GOAL 3

Canadians benefit from efficient energy infrastructure and markets.

GOAL 4

The NEB fulfills its mandate with the benefit of effective public engagement.

GOAL 5

The NEB delivers quality outcomes through innovative leadership and effective support processes.

As partners in the responsible development of Canada's energy sector, the NEB works on behalf of Canadians to ensure they reap the benefits from an efficient, safe and reliable energy system.

Our decisions are made in the public interest and are based on respect for the rights of those affected, concern for our environment and a commitment to safety and security.

To make decisions that balance economic, environmental and social considerations, the Board relies on the collective skill and experience of a team of professionals: engineers, economists, environmental specialists and other technical experts and challenges them to seek out solutions that are practical and innovative.

We strive for excellence and we demonstrate an unwavering commitment to our values: INTEGRITY, REGULATORY LEADERSHIP AND ACCOUNTABILITY. Canadians can count on us to be fair and transparent; to design regulatory approaches that are responsive and proactive; and, to hold each other accountable in everything that we do.





"The National Energy Board is working cooperatively with other agencies to coordinate and streamline regulatory processes, develop guidelines for processing times, and reach out to public interest groups."

CHAIRMAN'S LETTER

DEAR STAKEHOLDERS:

The theme for this year's annual report is *Partners* in Responsible Development. I'd like to take a moment to explain what we mean by that. The National Energy Board believes that in a broad sense we are partners with Canadians in the responsible development of energy infrastructure. Energy development cannot, and should not, be viewed in isolation from the potential social and environmental impacts it may have. The Board prides itself in listening to and communicating with all of our stakeholders to ensure we understand their perspectives and that understanding then guides us in our decisions. The responsible development of energy infrastructure serves the Canadian public interest by providing safe, reliable energy to heat our homes, fuel our transportation and power our economy.

For anyone with an interest in energy-related matters, it will come as no surprise to hear that 2006 was a particularly busy year for the National Energy Board

We received hundreds of applications last year, ranging from relatively simple requests for an export order to complex applications for new, large-scale infrastructure projects. In some cases, public hearings were necessary and in 2006, the number of public hearing days, including those for the Mackenzie Gas Project's Joint Review Panel, climbed to 141 – six times the previous year's tally.

Nearly a third of these hearing days were devoted to the Mackenzie Gas Project; an application to build a major pipeline from the Mackenzie Delta down to Alberta to carry northern gas to both domestic and export markets. We completed the scheduled portion of the hearing on 15 December 2006 – the culmination of a year-long process that included public hearings in 14 communities in the Northwest Territories and one community in northern Alberta, as well as a ruling on a motion by the Mackenzie Explorers Group.

In spite of the dramatic increase in the amount and complexity of applications that stretched our resources to the limit, we have had some real successes. We were able to successfully substitute our environmental assessment process for that of the Canadian Environmental Assessment Agency (CEAA) in a pilot project. Our new risk-management approach to applications was implemented towards the end of 2006 with great success. We also implemented comprehensive service standards, which further strengthens our culture of service and gives our stakeholders increased certainty.

In 2006, we remained committed to providing Canadians with relevant and objective energy information, statistics and advice. In January, we launched a new consumer-focused section on our website dedicated to providing factual information about energy pricing. Several Energy Market Assessments were released in 2006, covering topics such as natural gas deliverability, emerging technologies in electricity generation and the opportunities and challenges inherent in the development of Canada's oil sands. Consultation and work also continued on the *Energy Futures Report*, our flagship publication. Scheduled for release in the fall of 2007, the report will present a comprehensive energy outlook for the period 2005 to 2030.

HOT ENERGY CLIMATE

There is no doubt that when the price of energy goes up, so too will interest in finding new ways to bring that energy to market.

High crude oil prices and tight energy markets attracted intense interest from industry and investors this year. In July 2006, the price of West Texas Intermediate crude oil soared to a record US\$78.40 a barrel before settling at the 2006 average price of US\$66.24 per barrel - a 17 per cent increase over the 2005 average. More than 23,000 oil and gas wells were drilled; another record that signifies the industry's frenetic pace.

Canadian natural gas production is expected to remain largely unchanged over the next three years; however, natural gas market dynamics are changing. Demand is growing as a result of rising natural gas use by Alberta's oil sands projects and increasing demand for natural gas-fired electric power generation, especially in Ontario.

Canada's electricity supply met demand in 2006. While interest continues to grow in renewable resource development, emerging technologies such as wind, small hydropower projects and biomass can represent only part of a diversified solution designed to increase electricity supply.

CLEAR AND EFFICIENT REGULATORY PROCESSES

Despite an exceptionally busy year that brought complex projects and issues before the Board, we made significant strides towards achieving our goal to develop clear, predictable and efficient regulatory processes. During 2006, we fully implemented a program of service standards that categorizes and tracks all applications. As one measure of regulatory clarity, applicants are advised of the category in which their application falls, and the expected date of the Board's decision.

Efficient application assessment, processing and hearing procedures have always been important to industry and regulators. One of the ways we have been working to streamline our process is through our integrated compliance approach to applications. In the past, the application assessment was the only tool available for the NEB to ensure regulatory compliance throughout the lifecycle of a pipeline. By integrating information obtained from the application, operations and compliance activities, the NEB can significantly reduce the time required to process applications. This new approach targets the most efficient, effective regulatory oversight for the project based on its complexity, the risk involved and the previous record of the applicant.

The NEB strives to reduce duplication and fragmentation of the decision-making process whenever possible. When the Emera Brunswick Pipeline Company applied for authorization to construct and operate the proposed Brunswick Pipeline, we successfully applied to substitute the NEB hearing process for the process normally undertaken by the Canadian Environmental Assessment Agency. This step greatly facilitated the process for the parties involved and avoided duplication of effort by the NEB and the CEA Agency, both of which have a mandate to undertake environmental assessments. We believe that the 'substitute solution' is well aligned with the federal government's focus on regulatory streamlining and the National Energy Board is pleased to partner with other federal agencies, like the CEA Agency whenever feasible.

We are also seeking approval for a participant funding program. We recognize that for concerned Canadians and non-profit organizations to effectively participate in the NEB's quasi-judicial regulatory processes, some form of funding is necessary. Participant funding would support qualified groups and individuals with funding to cover such things as travel costs and fees for expert witnesses.

CULTIVATING OUR CORPORATE CULTURE

Looking back over the year, I realize that none of these achievements would have been possible without the commitment and competence of our staff who worked diligently to engage the public in the decision-making process, to meet or exceed our service standards and to introduce efficiencies while maintaining the integrity of the regulatory process. One of the side effects of a robust energy market is an increased need for staff with unique skills and the technical expertise necessary to manage the challenges of innovative projects such as applications for arctic pipelines, pipeline conversions, new pipeline services and new connections to planned LNG terminals. Towards the end of the year, recognizing the sustained increase in workloads and salary discrepancies in a very heated market, the government approved a special market allowance and performance pay for NEB employees.

In July, five new Board Members joined the NEB bringing with them a vast array of experience and skill in law, economics, regulatory affairs, the environment, and aboriginal issues. I would like to take this opportunity to acknowledge our departing Board Members: Carmen Dybwad, Deborah Emes, Patricia McCunn Miller and Elizabeth Quarshie. On behalf of my colleagues, I would like to thank them for their many contributions to the National Energy Board during their years of service.

Looking ahead, the Board foresees significant challenges related to our ability to sustain our capacity to serve the public interest in a highly competitive, dynamic energy economy. Our workload is not only increasing in volume, but also in complexity. We expect the steady pace of investment in Canada's energy sector will continue and we believe tha comparable investment in our staff and resources will be central to ensuring the Board remains an active, effective and knowledgeable partner in the responsible developmen. Canada's energy industry.

KENNETH W. VOLLMAN

parting Board Members: Carmen Dybwad, Deborah Emes, Chairman, National Energy Board





A LEADER IN ENERGY REGULATION

The National Energy Board (NEB or the Board) is an independent federal agency that promotes safety and security, environmental protection and efficient energy infrastructure and markets in the Canadian public interest within the mandate set by Parliament for the regulation of pipelines, energy development and trade. Established in 1959, the Board is funded 90 per cent by the energy industry it regulates and 10 per cent by government. The Board reports to Parliament through the Minister of Natural Resources.

The main functions of the NEB are established in the *National Energy Board Act* (NEB Act) and include regulating:

- the construction and operation of pipelines that cross international or provincial borders, as well as pipeline tolls and tariffs;
- the construction and operation of international power lines and designated inter-provincial power lines;
- natural gas imports and exports, crude oil, natural gas liquids, electricity exports; and,
- oil and natural gas activities on frontier lands and offshore areas not covered by federal or provincial management agreements.

The NEB regulates approximately 45 000 kilometres of pipelines across Canada. This network includes large diameter, high-pressure natural gas pipelines, crude oil and oil products pipelines, shorter small-diameter pipelines, and a number of commodity pipelines. In 2006, these pipelines shipped over \$110 billion worth of crude oil, petroleum products, natural gas liquids and natural gas at an estimated transportation cost of \$4.7 billion.

Additionally, the Board has regulatory responsibilities under the Canada Oil and Gas Operations Act (COGO Act) and under certain provisions of the Canada Petroleum Resources Act (CPR Act) for crude oil and natural gas exploration and production on frontier lands and certain areas offshore Canada's east, west and arctic coasts (Figure 3).

The NEB has environmental responsibilities under the Canadian Environmental Assessment Act (CEA Act) and the Mackenzie Valley Resource Management Act. In addition, certain Board inspectors are appointed Health and Safety Officers by the Minister of Labour to administer Part II of the Canada Labour Code as it applies to facilities and activities regulated by the Board.







The Board also monitors all aspects of energy supply, demand, production, development and trade that fall within the jurisdiction of the federal government and provides energy information. The NEB's mandate also includes providing expert technical advice to the Canada-Newfoundland and Labrador Offshore Petroleum Board, the Canada Nova Scotia Offshore Petroleum Board, Natural Resources Canada, and Indian and Northern Affairs Canada.

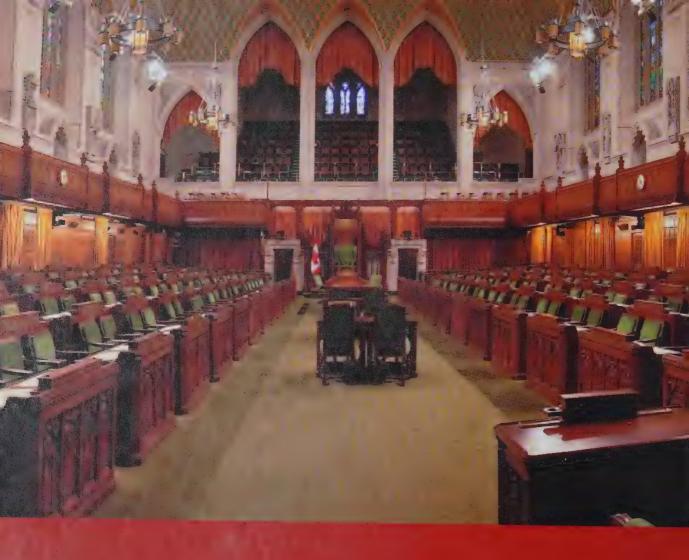
The NEB may, on its own initiative, hold inquiries, study specific energy matters and prepare reports for Parliament, the federal government and the general public. Under the NEB Act, the Board may provide advice to the Minister of Natural Resources Canada upon the Minister's request. In response to a request from the Minister with respect to the regulation of small interprovincial cross-border pipelines, the Board advised the Minister that it is pursuing a streamlining initiative which should better match application

and assessment requirements to the complexity and risks associated with facility applications, thereby reducing the regulatory burden.

The NEB is a court of record and has the powers of a superior court to compel attendance at hearings, examine witnesses under oath, inspect documents and enforce its orders. The NEB Act provides for up to nine permanent Board Members assisted by a staff of approximately 300 that includes, amony others, financial and market analysts, environmental and lands specialists, socio-economists, engineers, geologists and lawyers. Public hearings are typically conducted by three Board Members, who constitute a quorum, with one acting a the Presiding Member. The Board's regulatory decisions and the reasons for them are issued as public documents

More information on the background and operations of the NEB may be found at the Board's website, www.neb-one.gc.ca





STRIVING FOR REGULATORY EXCELLENCE

During 2006, high energy prices sent strong signals that Canadians need to use energy more efficiently and develop new sources of supply. In order to respond effectively, the energy industry requires a clear policy framework and timely responses from regulators and government. The Board believes that the development of infrastructure by private interests within a competitive marketplace serves the public interest, but regulatory bodies must address potential economic, social and environmental impacts not fully dealt with by markets. In carrying out this mandate, the NEB pursues a regulatory strategy that is based on goal-oriented regulations, clear, predictable regulatory processes, quality management systems and cooperation with other government agencies and departments.

REGULATORY ACTIVITY

In 2006, the NEB considered applications for new pipeline facilities, tolls and tariffs filings, international power lines, activities on frontier lands, and requests for changes to short-term export and import orders. The Board continued to monitor, assess and enforce compliance within the regulated industry through a comprehensive program of inspections and audits. The NEB also prepared reports on current and future energy market developments in Canada. These activities are summarized below:

Certificates, Orders, Permits and Applications approved in 2006

• 585 Certificates, Orders, Permits and Letter approvals

Construction and operation of pipelines and power lines under Parts III and III.1 of the NEB Act

• 26 Orders and Permits issued

Pipeline tolls and tariffs under Part IV of the NEB Act

15 Orders issued

Exports and imports of natural gas, crude oil, natural gas liquids and electricity under Part VI of the NEB Act

• 388 Orders and Permits issued

Exploration and production activity in frontier areas under the COGO Act

• 38 Applications approved

Activity in frontier areas under the CPR Act

• 2 Significant Discovery Declarations

Proceedings

- 10 Public hearings
- 141 Public hearing days

Compliance Monitoring

- 23 Inspections undertaken during construction
- 10 Inspections of operating pipelines and facilities
- 5 Incidents resulting in an on-site response by NEB personnel
- 42 Workplace inspections under the Canada Labour Code
- 6 Security Management Program reviews (joint assessments with the Alberta Energy and Utilities Board)
- 2 Financial audits

Landowner Complaint Resolution Program

• 20 Landowner files considered

Energy Market Information

During 2006, the NEB published several publications and statistical reports related to energy commodities. For a complete listing, see page 37 of this report.

OUR VISION

The NEB is an active, effective and knowledgeable partner in the responsible development of Canada's energy sector for the benefit of Canadians.

REGULATORY CHANGES

The NEB's goal-oriented regulations are a combination of prescriptive and performance-based directives supported by standards and non-mandatory guidance notes. The Board has found that goal-oriented regulations promote increased industry responsibility and flexibility in meeting NEB regulatory requirements.

In 2006, the Board worked with the Department of Justice on several new or changing regulations, including:

- preparation of the new Damage Prevention Regulations and the updated Canada Oil and Gas Diving Regulations being published for comment in Part I of the Canada Gazette;
- amendments to the National Energy Board Cost Recovery Regulations which involved modifying the cost recovery period to match the NEB fiscal year (1 April to 31 March) and adding provisions to address electricity industry concerns; and.
- development of new, goal-oriented Canada Oil and Gas Drilling and Production Regulations which amalgamate the existing Canada Oil and Gas Drilling Regulations and

the Canada Oil and Gas Production and Conservation Regulations. These regulations are being developed in cooperation with Natural Resources Canada, Indian and Northern Affairs Canada, the Canada-Newfoundland and Labrador Offshore Petroleum Board, the Canada Nova Scotia Offshore Petroleum Board, the Nova Scotia Department of Energy and the Newfoundland and Labrador Department of Natural Resources. The objective is to ensure common regulatory approaches for activities in offshore regions, the Northwest Territories and Nunavut.

INDUSTRY STANDARDS

The NEB, in partnership with industry, government and stakeholder groups, participated in several initiatives focused on developing consensus-based standards, best practices and common approaches to safety, security and environmental issues. As part of this work, NEB staff belong to several technical committees that develop and update Canadian Standards Association pipeline standards. The NEB is also a member of the Canadian Pipeline Environment Committee and the Canadian Association of Members of Public Utility Tribunals.







PARTNERS IN RESPONSIBLE DEVELOPMENT

"At the NEB we work to streamline our regulatory processes and scope our application assessments to match the complexity and risk represented by each facility application."

Kenneth Vollman, Chair National Energy Board

APPLICATIONS IN 2006

Responsible development occurs in the public interest by working collaboratively with industry, government and other agencies to streamline regulatory processes, reduce or eliminate duplication of effort and expedite applications where appropriate. As the Board works towards greater regulatory efficiency, the Board remains committed to its primary purpose: We promote safety and security, environmental protection and efficient energy infrastructure and markets in the Canadian public interest.

Depending on the nature of the application and the level of public interest, the Board may deal with an application by way of an oral or written hearing, or through a non-hearing process.

In 2006 the Board received 192² applications from regulated companies, including 38 applications under the COGO Act related to exploration and production activity in frontier areas. The majority of these applications did not require a

public hearing because they related to matters such as routine improvements to the operation of existing regulated facilities. However, the number and complexity of these applications climbed significantly in 2006 – a trend that is expected to continue.

THE HEARING PROCESS

The Board holds hearings for infrastructure applications, such as pipelines or international and inter-provincial power lines, for major toll applications and occasionally for the export and import of energy. In alignment with our commitment to fairness, transparency and respect, hearings follow the principles of natural justice. Hearing procedures are designed in the interest of fairness and all records of communication with the applicant regarding the substance of the application, third parties or any application-related submissions are placed on the public record and are available to all interested parties.

For large infrastructure applications, such as pipelines, the Board typically holds oral hearings in the vicinity of the proposed facilities. At oral hearings, witness panels are put forward for questioning by other participants in the hearings. Parties who do not wish to participate as intervenors are provided the opportunity to present written statements or provide an oral statement, where permitted. Following the evidentiary portion of the hearing, the Board hears argument based on the evidence on the record. The hearing is then usually adjourned and the Board makes its decision.

Decisions are accompanied by written Reasons for Decision. For infrastructure applications, a certificate is issued if the Board's recommendation for approval is accepted by the Governor in Council. The certificate could include conditions addressing various issues that were raised during the hearing.

THE NON-HEARING PROCESS FOR FACILITIES APPLICATIONS

When a company submits an application for the construction of a pipeline less than 40 kilometres long or to modify or add facilities to existing pipeline systems, the Board adopts a non-hearing facilities application process to respond to the application. Generally, these applications raise little public concern; however, the Board may conduct a public hearing in situations where there is public concern.

When an application is received, an initial decision is made to classify the project into one of three service standards categories: A, B or C. Applications are assigned to a category based on the complexity and completeness of the application, and the interest of third parties. Applications assigned to Category A are generally routine matters that generate little public concern. A Category B application may include moderately complex issues and may also generate public interest. Category C applications are relatively rare and can be precedent setting. The target is to reach a regulatory decision 80 per cent of the time within 40 days (Category A), 90 days (Category B) and 120 days (Category C) of receiving a complete application.

Certain projects may be subject to an environmental assessment under the *Canadian Environmental Assessment Act* (CEA Act).

Even in a situation where there is no hearing, the Board still adheres to the rules of natural justice. At specified points in the process, the public may provide comments to the Board, which would also be placed on the public record. Both the hearing and non-hearing processes are designed and driven by two key NEB values: We are responsive, proactive and innovative and we support and hold each other accountable to deliver timely, high quality results in the Canadian public interest.

INNOVATIVE PILOT PROJECT

After months of development, the NEB applied its lifecycle compliance management approach to the Nexen Cuthbert Pipeline application for approval to construct and operate a short natural gas pipeline at the Alberta-Saskatchewan border.

In the past, the NEB mainly referred to a company's original application when assessing regulatory compliance throughout the lifecycle of a project. Although the Board would gather a significant amount of knowledge about a company's programs during compliance activities once a facility or pipeline was operational, this knowledge was not taken into account when the same company submitted subsequent applications. In processing the Nexen Cuthbert Pipeline Section 58 application, the NEB pilot project team drew on all existing knowledge of the company to ensure that the

proposed facility would be designed, built and operated in a manner fully compliant with the regulations and aligned with the Board's goals.

By integrating information obtained from application, operations and compliance activities and by adopting a risk-based approach, the pilot project team confirmed the fundamental principles of the integrated compliance and life cycle approach. This approach ensured that matters of safety, environmental protection and economic efficiency were properly addressed.

Another important outcome was a significant reduction in the time required to assess this application to an unprecedented 16 days.

In recognition of their revolutionary approach and ultimate success in improving regulatory efficiency, the Nexen Cuthbert pilot project team was selected for the 2006 Chairman's Award. If an application is approved and deemed to be in the Canadian public interest, the Board will authorize the project through an order, which may include conditions the applicant must fulfill during project development. The Board may then use a variety of post-decision tools, such as inspections, to ensure compliance with applicable regulations, company commitments and imposed conditions.

APPLICATION HIGHLIGHTS – PIPELINE APPLICATIONS

Mackenzie Gas Project

In October 2004, the NEB received five applications from Imperial Oil Resources Ventures Limited, Mackenzie Valley Aboriginal Pipeline Limited Partnership, Imperial Oil Resources Limited, ConocoPhillips Canada (North) Limited, ExxonMobil Canada Properties and Shell Canada Limited for the construction and operation of the more than \$7 billion Mackenzie Gas Project in northern Canada.

Throughout 2005 the Board held information sessions in many communities along the Mackenzie Valley, across the Northwest Territories and in northern Alberta. In December 2005, the Board held pre-hearing planning conferences in Inuvik, Yellowknife, Fort Good Hope and Fort Simpson to obtain public input into the hearing process. In addition to participating in discussions, participants provided written and phone-in comments.

Key events, decisions and rulings

Beginning in Inuvik on 25 January 2006, the Board carried out the evidentiary portion of its public hearing in 14 communities in the Northwest Territories and northern Alberta for a total of 47 hearing days. This involved the presentation of oral statements by members of the communities and the cross-examination of witnesses on their filed evidence.

On 2 June 2006 the Board heard oral argument in Yellowknife on a Motion by the Mackenzie Explorers Group (MEG) that the Mackenzie Gathering System and Mackenzie Valley Pipeline be a single pipeline subject to regulation in its entirety under Part IV of the NEB Act, and that Imperial be required to prepare, file and serve the toll principles and tariffs that would be applicable to its services on the combined system. The Board issued its ruling on 10 July 2006 denying MEG's motion. This ruling is being appealed to the Federal Court of Appeal by the Mackenzie Explorers Group. The Board completed the scheduled portion of its hearing on 15 December 2006 in Inuvik.

The Board's hearing process is coordinated with the Environmental Impact Review of the Mackenzie Gas Project by the Joint Review Panel. The Joint Review Panel for the Mackenzie Gas Project is a seven-member, independent body that will evaluate the potential impacts of the project on the environment and lives of the people in the project area. NEB Board Member Rowland Harrison was appointed as a member of the Joint Review Panel in 2004. The Board awaits the release of the Joint Review Panel Report and the Board Member's report and recommendations before completing its hearing process issuing its Reasons for Decision on the Mackenzie Gas Project.

On 10 November 2006 Justice Phelan of the Federal Court of Canada issued his judgment in a court challenge initiated by the Dene Tha' First Nation concerning the Mackenzie Gas Project. The judgment required the respondents, including the Minister of the Environment, Minister of Fisheries and Oceans, Minister of Indian and Northern Affairs Canada and the Minister of Transport to consult with the Dene Tha' in respect of the Mackenzie Gas Project, including the downstream connecting facilities. These connecting facilities would link natural gas supplies from the proposed Mackenzie Pipeline into the national pipeline grid. The judgment stayed the Joint Review Panel hearing process in any matters involving the downstream connecting facilities or the territory in which the Dene Tha' First Nation have or have asserted Aboriginal or treaty rights.

Throughout 2006, the NEB continued to partner with the Northern Gas Project Secretariat, whose mandate entails supporting and coordinating public hearing processes.

"I have been increasingly impressed in the last six to 12 months at the efforts of the National Energy Board ... to respond to this growing wave of applications and filings."

Ian Anderson, President Kinder Morgan Canada



Proposed to be operational by the end of 2011, the 1 194-kilometre natural gas pipeline would transport an average 34 million cubic metres (1.2 billion cubic feet) of natural gas per day.

The Secretariat is based in Yellowknife, with regional offices in Inuvik, Norman Wells and Fort Simpson. It provides the forum through which agencies responsible for the environmental and regulatory assessment of the Mackenzie Gas Project, such as the NEB, to develop cooperative, harmonized approaches, while respecting the need for their review processes to be conducted independently.

Kinder Morgan Canada (Formerly Terasen Pipelines (Trans Mountain) Inc.) TMX Anchor Loop Project

On October 26 2006, the NEB approved an application by Terasen Pipelines (Trans Mountain) Inc. for the TMX - Anchor Loop Project. The TMX Anchor Loop Project includes a pipeline loop and associated facilities extending from Hinton, Alberta to a location near Rearguard, British Columbia. The project generally parallels the existing Trans Mountain right of way through Jasper National Park and Mount Robson Provincial Park.

The project includes the construction and operation of 7.6 kilometres of 762-millimetre pipeline from west of Hinton, Alberta to the Hinton Pump Station and 151 kilometres of 914-millimetre pipeline from the Hinton Pump Station to a location near Rearguard, B.C. The project also includes the installation of two new electric drive pump stations.

The project will increase Trans Mountain pipeline's capacity by 6 360 cubic metres (40 000 barrels) per day of oil by the third quarter of 2008.

The project required an environmental screening under the *Canadian Environmental Assessment Act*. To this end, the Board worked with other federal and provincial departments with an environmental assessment responsibility to create a coordinated environmental screening process that would meet the needs of each in their respective environmental assessments. The Board's Reasons for Decision is available at www.neb-one.gc.ca.

Emera Brunswick Pipeline Company Ltd. Brunswick Pipeline Project

On 23 May 2006, Emera Brunswick Pipeline Company Ltd. (Emera) applied to the NEB for a Certificate of Public Convenience and Necessity pursuant to section 52 of the NEB Act for authorization to construct and operate the proposed Brunswick Pipeline. Emera also applied pursuant to Part IV of the NEB Act for approval of the tolls to be charged and for designation as a Group 2 company under the NEB Act.

The proposed Brunswick Pipeline consists of approximately 145 kilometres of 762-millimetre pipeline extending from the Canaport™ LNG Terminal at Mispec Point, New Brunswick to the international border near St. Stephen, New Brunswick. Capacity of the proposed facility is approximately 23.16 million cubic metres (817.6 million cubic feet) per day of natural gas. The capital cost of the proposed project is estimated at \$350 million. The proposed Brunswick Pipeline is planned to be operational by the end of 2008.

The Brunswick Pipeline Project was referred to a review panel pursuant to section 25 of the *Canadian Environmental Assessment Act*. Pursuant to section 43 of the CEA Act, the NEB was permitted to use its public hearing process as a substitution of an environmental assessment by a review panel. The NEB hearing process established for the review was conducted as a pilot substitute for an environmental assessment by a review panel as provided for under section 43 of the CEA Act.



Located further west than Vancouver and within the Arctic Circle, the Mackenzie Delta spans approximately 14 250 square kilometres, an area more than twice the size of Prince Edward Island.

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The Board held information sessions in Saint John in April, June and October 2006. The oral public hearing was held in Saint John from 6 November 2006 to 20 November 2006. A written final argument process concluded on 22 December 2006. The NEB's decision on the proposed pipeline is pending.

TransCanada PipeLines Limited (TransCanada) and TransCanada Keystone Pipeline GP Ltd. Keystone Oil Pipeline Project

On 5 June 2006, Trans Canada Pipe Lines Limited (Trans Canada) and Trans Canada Keystone Pipeline GP Ltd. (Keystone) applied to the NEB for leave to transfer certain pipeline facilities that are currently part of the Trans Canada Mainline natural gas transmission system from Trans Canada to Keystone, and related orders. A public hearing on the application was held in October and November 2006. It is Keystone's intention, to convert the transferred natural gas facilities to crude oil service for use in its proposed Keystone crude oil pipeline project. The Board will release its decision in 2007.

On 12 December 2006, Keystone submitted a facilities application for the Canadian portion of its proposed Keystone project, including the conversion of the natural gas facilities to crude oil service. A public hearing in respect of the application is scheduled to begin on 4 June 2007.

EnCana Corporation Deep Panuke Offshore Gas Development Project

EnCana filed a Project Description for the Deep Panuke Offshore Gas Development Project on 29 August 2006, which initiated the environmental assessment coordination.

On 9 November 2006, EnCana applied to the NEB for a Certificate of Public Convenience and Necessity pursuant to section 52 of the NEB Act authorizing EnCana to construct and operate:

- i) an approximately 176-kilometre, 559-milimetre natural gas pipeline from the Deep Panuke mobile offshore production unit located about 250 kilometres southeast of Halifax to a point of interconnection with facilities owned and operated by Maritimes and Northeast Pipeline near Goldboro, Nova Scotia.
- ii) necessary custody transfer facilities located at the interconnection of the Deep Panuke Pipeline with facilities operated by Maritimes and Northeast Pipeline, as well as other monitoring and related equipment necessary to operate the Deep Panuke Pipeline.

The pipeline would be designed to transport up to 8.5 million cubic metres (300 million cubic feet) per day of sweet natural gas.

SUBSTITUTION STREAMLINES ENVIRONMENTAL ASSESSMENT PROCESS

On 4 May 2006, the NEB's request to substitute its hearing process for the Emera Brunswick Pipeline Project environmental assessment review panel was approved by the Minister of the Environment.

The NEB and its federal partners are responsible for ensuring that the environmental assessment meets the requirements set out in the scoping document. This is the first application of the substitution provisions in the *Canadian Environmental Assessment Act* since the proclamation of the original Act in 1995.

"Substitution of the NEB hearing process will allow us to be more efficient and effective in delivering federal environmental assessments for large facilities applications," said Kenneth Vollman, NEB Chairman and CEO. "Our administration requirements will be simplified, duplication of government effort will be virtually eliminated and the duration of the environmental assessment will be significantly reduced. If this trial run is considered successful, we can expect further opportunities to demonstrate the quality of the NEB environmental assessment process."

NEB staff worked closely with the Canadian Environmental Assessment Agency and other federal government departments to design a substituted process that would meet the needs of the public, industry and government agencies involved in the Emera Brunswick Pipeline application.

To avoid any duplication or confusion generated by separate hearings, the NEB coordinated its process with the Canada Nova Scotia Offshore Petroleum Board (CNSOPB) and will hold concurrent hearings before a CNSOPB-appointed commissioner and NEB Member Kenneth Bateman, who was appointed under section 15 of the NEB Act. The commissioner and NEB member will write a joint Environmental Report to be used by the Responsible Authorities, in preparing the Comprehensive Study Report under the CEA Act. The hearings will begin on 5 March 2007.

Enbridge Gateway Project Gateway Pipeline Inc.

On 1 November 2005, Gateway Pipeline Inc. (Gateway) submitted a Preliminary Information Package to the NEB, the Canadian Environmental Assessment Agency and relevant federal agencies.

The proposed project includes the construction and operation of an export oil pipeline and an import condensate pipeline along an approximately 1 150-kilometre right of way between an inland terminal near Edmonton, Alberta and a marine terminal near Kitimat, British Columbia. Gateway also proposes to construct and operate a marine terminal in Kitimat at tidewater to accommodate the transfer of crude oil and condensate into and out of tankers. The estimated capital cost of the proposed project is \$4 billion.

On 29 September 2006, the Minister of Environment announced that the review process would be undertaken by a Joint Review Panel between the NEB and the Minister of Environment. A draft Joint Review Panel Agreement was issued for a public comment period. Comments have been received on the draft Agreement, but it has not been finalized.

On 27 November 2006, the Board and the Minister of Environment received a letter from Gateway stating that, pending further commercial progress on the project, Gateway had decided to delay its anticipated in-service date from 2012 to 2014 and asked that the Environmental Assessment review process be delayed. Given this delay the NEB, on behalf of the Responsible Authorities, sent a letter to the Minister of the Environment on 18 December 2006 indicating that the Responsible Authorities would not be exercising any power nor performing any duty or function of the Canadian Environmental Assessment Act in respect to the proposed project at this time.

TOLLS AND TARIFFS APPLICATIONS

Applications carried over from 2005

Coral Energy Canada Inc.
Modifications to the FT-RAM Pilot
RHW-2-2005

In January 2005, Coral Energy Canada Inc. (Coral) applied to the Board to modify the Firm Transportation Risk Alleviation Mechanism pilot, a service enhancement proposed by TransCanada PipeLines Limited for its Mainline. This pilot program allows long-haul Firm Transportation shippers to apply unused Firm Transportation demand charges against their cost of interruptible transportation service. The Board approved Coral's application in February 2006 and directed TransCanada to modify its Mainline Transportation Tariff to reflect this decision.

WHAT ARE TOLLS AND TARIFFS?

Tolls are the prices charged by a pipeline company for transportation and other services on its system and can vary from year to year as costs and circumstances change. Tariffs describe the terms and conditions under which the services of a pipeline are offered or provided, including the tolls, rules, regulations and practices relating to specific services. Tolls and tariffs for major pipelines are decided either through a public hearing process or through negotiations between pipeline companies and shippers. All negotiated settlements must be approved by the NEB.

To improve the effectiveness of the regulatory process, the Board supports the use of negotiated settlements as an alternative to toll hearings. Negotiated settlements have contributed to a significant reduction in the time and money spent addressing cost of service issues in public hearings. Parties involved report that the use of task forces and settlements has increased collaboration between companies and their shippers and resulted in a better alignment of interests. Other benefits include potential incentives for cost control and performance improvement standards which can also be part of agreements. As well, the tendency for settlements to have terms that are longer than an adjudicated decision provides greater predictability and stability.

Chevron Canada Limited, Chevron Standard Limited and Neste Canada Inc.

Applications for Priority Destination MH-2-2005

In January 2005, the Board received two applications from Chevron Canada Limited, Chevron Standard Limited and Neste Canada Inc. (Chevron) for orders designating Chevron's refinery at Burnaby, British Columbia a priority destination on the Terasen Pipelines (Trans Mountain) Inc. pipeline system for the unapportioned delivery of crude oil and isooctane from Edmonton, Alberta.

In 2006, the Board allowed the two applications to be consolidated into one, dealt with several motions and scheduled a hearing for 27 March 2006.

On 13 March 2006, Chevron confirmed they were prepared to withdraw the application if the Board approved certain revisions to the Trans Mountain tariffs (Petroleum Tariff No. 61 and Interim Refined Petroleum Tariff No. RP 29) that had been filed on 8 March 2006 by Kinder Morgan Canada Inc. On the basis of the Board's 15 March 2006 letter regarding the proposed tariff revisions, and the understanding with Kinder Morgan and the other shippers that the tariff changes approved by the Board would remain in place until Trans Mountain's Pump Station Expansion was in service, Chevron withdrew its application before the hearing began.

Centra Transmission Holdings Inc. Application for Revised Tolls RHW-3-2005

On 5 August 2005, Centra Transmission Holdings Inc. (Centra) filed an application with the Board seeking increased tolls effective 1 August 2005. Following an informal process undertaken by Centra with its shippers, the shippers asked the Board to initiate a more formal process. On 25 November 2005, the Board established a written proceeding to address shippers' concerns. On 23 March 2006, the Board issued its RHW 3 2005 Reasons for Decision that included increases of 32 per cent to Centra's domestic toll and 35 per cent to its export toll.

Applications Received in 2006

Kinder Morgan Canada Inc.

Proceeding Regarding Implementation of the Westridge Dock Premium on Terasen Pipelines (Trans Mountain) Pipeline System

T099-2006-01

On 8 March 2006, Kinder Morgan Canada Inc. filed Petroleum Tariff No. 61 and Interim Refined Petroleum Tariff No. RP 29 for its Terasen Pipelines (Trans Mountain) Pipeline system. The new tariffs included revisions to the procedure for allocating crude oil nominations into the system for deliveries to Trans Mountain's marine terminal for export



over the Westridge Dock. The procedure of drawing lots to allocate ship loadings would be removed and replaced with a premium – the amount shippers would be willing to pay to acquire Westridge dock capacity. Terasen would then allocate capacity based on a ranking of premiums from highest to lowest, with the shipper submitting the highest premium selected first.

On 15 March 2006, the Board approved the tariffs with the exception of the proposed changes to the Westridge Dock capacity allocation procedure. Due to the number and complexity of the objections from shippers and interested parties to these changes, the Board established a process that allowed for both written submissions and oral argument for considering the proposed changes to the procedures and premium.

In April 2006, the Board decided that the Westridge Dock capacity allocation procedures in Trans Mountain's tariffs, including the premium, do not contravene sections 62 and 67 of the NEB Act and approved the inclusion of the premium in the tariff.

TransCanada PipeLines Limited Short Notice Services RH-1-2006

In May 2006, TransCanada applied for an order to implement two new services designed to meet the needs of natural gas-fired electrical power generators; namely a Firm Transportation – Short Notice (FT-SN) service and Short Notice Balancing service. TransCanada's application included proposed toll methodologies for both services.

In December 2006, the NEB approved TransCanada's proposed FT-SN service, including the requirement that FT-SN be nominated and delivered to a separate delivery area with a separate meter. Further, the Board approved the proposal that the separate FT-SN delivery areas are to be used only for the delivery of natural gas under FT-SN contracts and that flow control valves be installed at FT-SN meter stations. The Board approved the proposed FT-SN toll method of a 10 per cent premium over the Firm Transportation toll and directed TransCanada to conduct a yearly recalculation of the premium.

The Board approved the proposed Short Notice Balancing service but rejected the proposed tolling methodology. The Board directed TransCanada to develop an alternative tolling methodology which addresses the concerns noted in the devision

TransCanada PipeLines Limited Gros Cacouna Receipt Point RH-1-2007

On 5 December 2006, TransCanada applied to the Board pursuant to Part IV of the *National Energy Board Act* for an order affirming the tolling methodology that will apply to an anticipated new receipt point at Gros Cacouna, Quebec. This proposed new receipt point would allow the receipt of regasified liquefied natural gas from Gros Cacouna.

As outlined in its application, TransCanada expects future applications to be filed with the NEB for approval of the pipeline facilities required to connect the Gros Cacouna receipt point to its integrated pipeline system. An oral hearing for the current application will begin in the second quarter of 2007.

FINANCIAL AUDITS

The Board periodically conducts financial regulatory audits of the pipeline companies it regulates. These audits provide information about compliance with the Board's regulations, orders and decisions, as well as up-to-date knowledge of the company and the extent to which it operates with due regard to prudency and efficiency. In 2006, the Board completed two of these audits. The TransCanada audit focused on the Mainline system and there were no findings of noncompliance. There was one finding of non-compliance in the Trans-Northern audit and it related to the Board's section 58 Streamlining Orders. Following discussion, the company advised the Board of its commitment to comply.

APPLICATIONS FOR POWER LINE FACILITIES

Sea Breeze Victoria Converter Corporation

On 1 December 2005, Sea Breeze Victoria Converter Corporation (Sea Breeze) applied to the Board for a Certificate of Public Convenience and Necessity to construct and operate an international power line and elected to have the provisions of the NEB Act apply to the proposed power line, rather than the provincial laws of British Columbia.

The proposed international power line would be an approximately 48-kilometre, 150 kilovolt high-voltage direct current merchant power line system, rated at 574 megawatts. This project, known as the Juan de Fuca Cable Project, would connect the Port Angeles substation in Port Angeles, Washington to an existing BC Hydro and Power Authority substation in Victoria, B.C.

The Board held a public hearing, the oral portion of which ran from 26 to 28 June 2006 in Esquimalt, B.C., to consider Sea Breeze's application. The Board approved the application, with conditions, and released its Reasons for Decision and Certificate EC-III-26 on 7 September 2006. This is the first merchant international power line applied for and approved by the Board.

Montana Alberta Tie Ltd.

On 21 December 2005, Montana Alberta Tie Ltd. (MATL) filed an application under section 58.11 of the NEB Act seeking a permit to construct and operate a 230-kilovolt alternating current international power line from Lethbridge, Alberta to Great Falls, Montana. The proposed power line would be approximately 338 kilometres long, about 130 kilometres of which would be in Canada. The northern endpoint of the Canadian portion of the power line would be connected to an existing 240-kilovolt line owned by AltaLink through a substation just north of Lethbridge. The power line would cross the international border southwest of the community of Milk River.

In October 2006, MATL filed an update proposing changes to its original application, including modifications to its preferred corridor. The Board continues to process this application.



WHAT IS A SIGNIFICANT DISCOVERY DECLARATION?

Significant Discovery Declarations give the interest holder(s) exclusive rights to drill, test for and develop land in order to produce petroleum. A company applies for a Significant Discovery Declaration following exploratory drilling when it encounters hydrocarbons that meet certain regulatory requirements such as potential for sustained production. The applicant provides confidential information to the NEB that supports their claim for the aerial extent of their discovery. The Board then examines all evidence, gives notice that it intends to declare a significant discovery and subject to a hearing request, makes a declaration for that discovery and posts it publicly.

The Department of Indian and Northern Affairs Canada issues a *Significant Discovery Licence* for non-Accord Frontier land north of 60° N latitude. Natural Resources Canada would do so for non-Accord Frontier land south of 60° N.

A Commercial Discovery application and Development Plan can be filed with the Board and upon approval, Indian and Northern Affairs Canada issues a production license.

The Board issued decisions on two Significant Discovery Declarations in 2006: EnCana Umiak N-05 (April) and Chevron Langley K-30 (December) are both located in the Mackenzie Delta area.

ACTIVITY IN FRONTIER REGIONS

The NEB continues to pursue opportunities for coordination of activities in frontier regions with other northern and offshore regulatory and environmental review processes.

The Board also provides regulatory support to the Yukon Government in its administration of oil and gas activities under a service agreement.

The NEB assessed 38 project applications related to geological, geophysical and drilling activities in frontier regions under the *Canada Oil and Gas Operations Act* in 2006. The majority of applications (80 per cent) were filed by companies operating in the Central Mackenzie region; the remainder related to exploratory work in the Mackenzie Delta and Beaufort Sea. Nearly one third of the 38 applications called for routine geophysical and geological operations such as seismic work and airborne surveys.

Offshore in the Beaufort Sea region, the Pakota C60 well reached total depth in March 2006. This well was the first offshore drilling activity in the Beaufort Sea in 13 years when it was spudded in December 2005.

NEB frontier team members also continued to work collaboratively with industry to address challenges presented by a shorter drilling season in northern regions. Problems with scheduling occurred as crews delayed moving rigs and other heavy equipment to well sites until the ground was frozen deeply enough to bear the weight. The short drilling season also affects emergency planning processes which call for the capacity to drill a relief well on site, if necessary, during the same season. New drilling technology, now in the testing phase, is one option being considered to address this issue.

The NEB communicated with First Nations and northern agencies responsible for land and water use to explore alternative well site waste disposal methods. Normally, lined pits called sumps hold fluids and soft sediments arising from drilling operations; however, the NEB and industry are looking at other options that do not affect the surface of the land.

Natural gas production continued from the Ikhil and Fort Liard fields. Oil production flowed from the Norman Wells field and the Cameron hills region sustained combined oil and gas production throughout the year.

In 2006 the frontier team also:

- engaged with the Geological Survey of Canada and the Northwest Territories Geoscience Office to develop common databases;
- introduced a new, streamlined reporting system for production accounting; and,
- worked on technology upgrades for frontier operations that will reflect advances made in surveying techniques over the past 25 years. The industry is shifting from a 1927 North American Datum System to a 1983 NAD System with a goal of adopting this international standard by 2008.

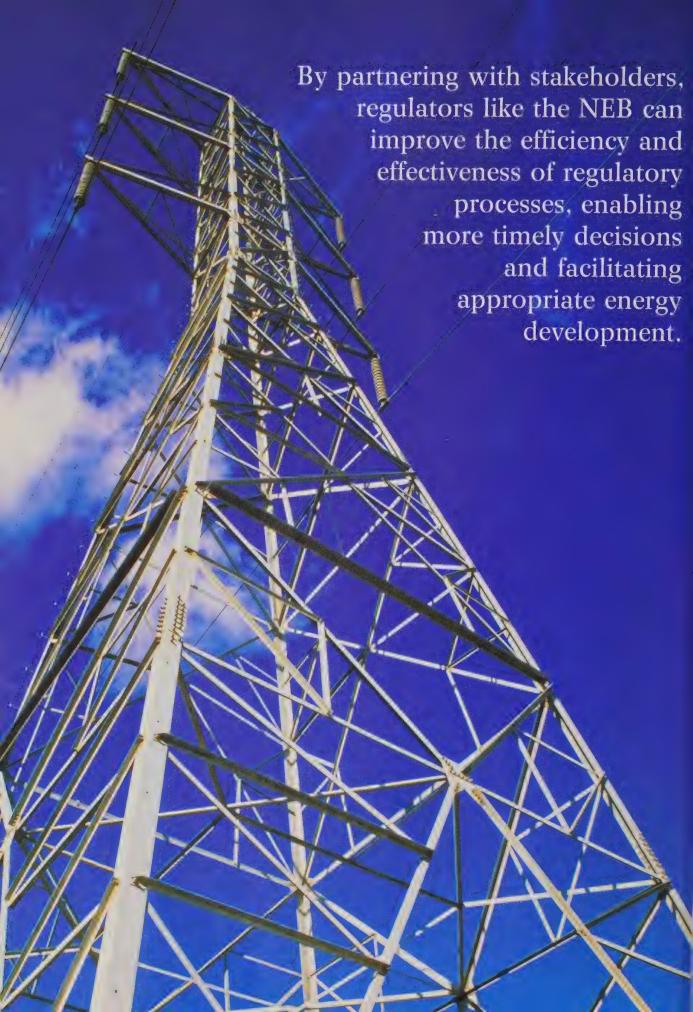
During 2006, an increasing number of visitors came to the NEB's Calgary-based frontier information office to access data released from past exploration activity. This interest could translate into a comparable increase in the level of frontier exploration activity over the next few years as companies analyze and act on the information.

PREPARING FOR THE FUTURE

Activity level in Canada's northern frontier in 2007 and beyond is contingent on a number of factors, chief among them being the status of the Mackenzie Gas Project. The Board has observed the entry of new players in the Northwest Territories and subsequent geological and geophysical activity, including seismic operations.

An increase in drilling activity in the Northwest Territories is likely, should the regulatory process for the Mackenzie Gas Project be seen to be moving forward. The return of activity is not expected to be sharp; rather a steady increase in the number of authorization requests for both seismic and drilling programs. In the three-to-five-year horizon, activity level may double that of 2006.

Negotiations between the federal government and the Northwest Territories on the devolution of natural resource management have resumed. The effect of devolution would reduce the geographic extent of the NEB's responsibilities for crude oil and natural gas exploration and production activities to the Nunavut and the offshore areas. It is possible that the NEB may provide support to the Government of the Northwest Territories for such activities under a service agreement similar to the one that exists between the NEB and the Government of Yukon.



ENERGY IN CANADA

Canada's energy sector is responding to tight energy markets by developing new large infrastructure projects, including oil pipelines, natural gas pipelines, liquefied natural gas receiving terminals, power generation and transmission facilities. These projects could bring additional energy supplies to Canadians and help ensure future energy security.

The NEB is responsible for reviewing many of the applications for these infrastructure projects and ensuring that, if they are found to be in the public interest, they proceed in ways that provide benefits to Canadians while minimizing any adverse impacts. In this regard, there are a number of challenges with the current regulatory system that require solutions to ensure fair and effective regulatory processes. These challenges include providing a clear regulatory framework, facilitating effective participation in regulatory processes, and maintaining the capacity to deliver in these areas.

Although the NEB is responsible for regulating only certain aspects of the Canadian energy industry, issues such as renewable energy, emissions and the effects of booming oil sands development can affect the work of the NEB. For more information on energy in Canada, please see the Energy Overview Report, to be released in May 2007. In addition, the *Energy Futures Report*, scheduled for release in fall 2007, includes a comprehensive energy supply and demand outlook for the years 2005 to 2030. In preparing this report, NEB staff consulted more than 100 groups and individuals representing industry, government, non-governmental organizations and academia.

The NEB extensively monitors energy markets and provides Canadians with an objective analysis of trends and issues. Informing Canadians on energy markets is a key strategy to fulfilling our mandate as set by Parliament.

CRUDE OIL

Highlights

- In July 2006, the price of West Texas Intermediate crude oil soared to a record \$78.40 per barrel.
- Canada's oil sands production increased by about 17 per cent.
- With the first full year of production from White Rose, Canada's East Coast offshore crude oil productive capacity increased by 30 per cent.

In mid-July 2006, the price of benchmark West Texas Intermediate (WTI) crude oil peaked at a record US\$78.40 per barrel, a 30 per cent increase from about US\$59 per barrel at the start of the year. Geopolitical uncertainty in Iran, Iraq, Nigeria and Venezuela, tight worldwide refining capacity, limited spare production capacity and a growth in demand contributed to this spike. By year-end, prices subsided to just over US\$60 per barrel because of a weaker economic environment and warm weather in North America and Europe. The 2006 average price of US\$66.24 per barrel represents a 17 per cent increase over the 2005 average price.

Canada is the world's seventh largest producer and a net exporter of crude oil. In 2006, Canada produced an average of 420 149 cubic metres (2.6 million barrels) per day of crude oil. Every day, about 270 147 cubic metres (1.7 million barrels) of crude oil, worth nearly \$39 billion, were exported - almost all to the United States.

High crude oil prices and strong demand have stimulated further development including a 17 per cent increase in production from Canada's oil sands. This supply increase more than offset the steadily declining production of conventional crude oil pumped from the Western Canada Sedimentary Basin. Production from conventional sources continued to decline, albeit at a slower rate, as high crude oil prices and lower natural gas prices encouraged many companies to shift their focus from natural gas to crude oil-directed drilling.

One of the challenges caused by increased production from Western Canada is a lack of adequate crude oil pipeline capacity. By year end, many pipelines were at capacity or under apportionment— a situation in which each of the shippers requesting space on a pipeline is apportioned a share of the available capacity.

On the East Coast, production averaged 51 507 cubic metres (324 494 barrels) per day, one per cent over 2005 levels. The three crude oil offshore fields - Hibernia, Terra Nova and White Rose - have the capacity to produce approximately 68 000 cubic metres (428 400 barrels) per day. However operational difficulties at Hibernia and Terra Nova reduced production at these facilities in 2006.

NATURAL GAS

Highlights

- Natural gas markets have been influenced by tight supplies in Western Canada, and rising domestic demand for natural gas-fired power generation in Ontario and Alberta.
- Canadian natural gas production is expected to decline slightly in 2007 due to a slow-down in drilling activity in the second half of 2006
- Applications before the Board included the Mackenzie
 Gas Project; the Emera Brunswick Pipeline Project, and
 an application by TransCanada PipeLines for leave to
 transfer certain pipeline facilities to Keystone for use in
 the Keystone Pipeline Project.

In recent years, growth in natural gas supply from the Western Canada Sedimentary Basin and other large supply basins in North America has not kept pace with demand, resulting in higher and more volatile natural gas prices.

Following the \$15 per MMBtu peak reached in late 2005 in the aftermath of supply disruptions caused by Hurricane Katrina, prices dropped to around \$4 per MMBtu by fall 2006 and are expected to range between \$5 and \$7 per MMBtu for the 2006-2007 heating season.

Demand for natural gas is expected to grow due to increasing use of this cleaner-burning fuel in oil sands operations, power generation projects and industrial requirements stimulated by the expanding Canadian economy.

Changing natural gas market dynamics are being driven by rising natural gas use by Alberta's oil sands projects and increasing demand for natural gas-fired power generation, especially in Ontario. Changing market conditions also affect the way in which some of Canada's natural gas pipelines are operated.

The Board made several decisions related to natural gas service in 2006, including:

- the provision of short notice services for gas-fired power generators, who require flexible operations and firm transportation for natural gas to serve fluctuating, weather-sensitive electricity demands (TransCanada PipeLines Short Notice Services); and,
- the removal of pipeline capacity from natural gas service for potential conversion to crude oil service (Keystone Oil Pipeline Project).

Canadian natural gas production is expected to decline slightly in 2007 due to a slow-down in drilling activity in the second half of 2006. This slow-down was most likely caused by a number of factors including rising costs, decreasing productivity of new wells and the lower price of natural gas. The Board anticipates that growth in the production of coalbed methane (CBM) will not fully offset the expected decline in conventional natural gas production. Natural gas from coal is currently produced in commercial quantities from the Horseshoe Canyon coals in south-central Alberta and the Mannville Formation coals northwest of Edmonton.

Over the longer term, industry is pursuing the development of natural gas resources in Canada's frontier lands. The Board is currently considering an application to build a major pipeline from the Mackenzie Delta down the Mackenzie Valley to Alberta and onwards to supply both domestic and export markets. Industry is also considering proposals to maintain production from offshore Nova Scotia through the enhanced development of producing fields and the potential development of the Deep Panuke gas field. Over the longer term, the arrival of Liquefied Natural Gas (LNG) imports is a possible source of gas supply.

Canada exports more than half of its natural gas production to the United States. Natural gas export volumes in 2006 are expected to be less than in 2005 when significant hurricane damage to production facilities in the Gulf of Mexico inflated U.S. demand for Canadian natural gas. Due to reduced export volumes and lower natural gas prices, 2006 natural gas exports generated about \$27.5 billion of export revenue, a drop from the record-setting \$35.6 billion generated by natural gas exports to the United States in 2005.

NATURAL GAS LIQUIDS (NGL)

Highlights

 Exports of propane and butanes declined slightly in 2006.

Ethane supply was tight throughout the year with no volumes available for export.

Natural gas liquids include ethane, propane, butanes and pentanes plus (also referred to as C_{5+} or condensate). Natural gas liquids are derived for the most part from natural gas production. Propane and butane are also produced from crude oil refining. In 2006, about 15 per cent of propane and 40 per cent of butane supply came from refinery processes.

With ethane production at about 40 300 cubic metres (253 890 barrels) per day, supply was tight in 2006 and no volumes were available for export. On the demand side, the Canadian petrochemical industry consumed an estimated 38 900 cubic metres (245 070 barrels) per day of ethane and enhanced oil recovery projects in Alberta consumed about 1 400 cubic metres (8 820 barrels) per day for miscible flood requirements.

Propane and butane production is estimated at 31 900 cubic metres (200 970 barrels) per day and 24 200 cubic metres (152 460 barrels) per day, respectively, in 2006. Excess volumes of propane and butane were available for export throughout the year; however, exports for 2006 declined slightly when compared to 2005 volumes. This decline is due to two main factors: the growing use of heavier natural gas liquids for bitumen diluent in Alberta (diluent is a diluting agent that helps bitumen flow more easily through a pipeline) and reduced demand for heating fuel in the United States. Given the frenetic pace of oil sands development, the use of heavy natural gas liquids for diluent increased in 2006 and this trend is expected to continue. With respect to condensate diluent requirements specifically, the NEB expects to see future applications for diluent import pipeline infrastructure.

2006 ANNUAL REPORT

ELECTRICITY

Highlights:

- Electricity supplies across Canada were adequate to meet domestic demand in 2006.
- Canada's total net electricity exports decreased from 23.6 terawatt hours in 2005 to 17.4 terawatt hours in 2006.
- On 15 September 2006, the NEB signed a Memorandum of Understanding recognizing the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization.

The electricity generation industry continues to consider a diversity of options for new generation, including natural gas, hydropower, nuclear energy and alternative technologies such as renewables and clean coal.

Although Canada's electricity supply met domestic demand requirements in 2006, ensuring adequacy of generation capacity remains a top priority. In an effort to address future generation adequacy, some provinces have developed strategies that involve stakeholders. For example, Ontario's Integrated Power System Plan, a comprehensive public engagement process coordinated by the Ontario Power Authority, includes both supply-side measures such as increasing generation capacity and demand-side responses such as conservation and improved energy efficiency.

While interest continues to grow in renewable resource development, the electricity industry recognizes that emerging technologies such as wind, small hydropower projects and biomass can only be part of a diversified solution designed to increase electricity supply. Although these technologies may be attractive from an environmental standpoint, they often face the same challenges as conventional technologies in obtaining siting approvals and grid access.

A number of proposals for large hydropower developments continued to be assessed in 2006. Some of the projects, such as the development of Lower Churchill Falls in Labrador and Conawapa in northern Manitoba, could lead to expanded regional trade and potentially significant additions to long-distance transmission capacity.

Canada's generation supply additions consisted mainly of natural gas-fired projects and a 767-megawatt increase in wind generation capacity to 1 451 megawatts by the end of 2006. Given the rising cost of new electric generation, one likely outcome in the years to come is higher consumer prices. Since the development of new generation targeted regional demand, the NEB saw little change in the number of regulatory applications for export. One export application currently before the Board from Yuddin Energy Inc. proposes to export electricity generated by a wind farm in northwestern Quebec.

On 7 September 2006, the NEB approved an application for Sea Breeze Converter Corporation to construct and operate an international power line between British Columbia and Washington State. An application by Montana Alberta Tie Ltd. to construct and operate an international power line from Lethbridge, Alberta to Great Falls, Montana is currently before the Board.

The NEB authorizes electricity exports and the construction and operation of international power lines. International power lines enable commercial trading opportunities and provide increased reliability.

Recent advances have been made with respect to the reliability of the North American power grid. On 15 September 2006, the NEB signed a Memorandum of Understanding recognizing the North American Reliability Corporation (NERC) as the Electric Reliability Organization. Starting in 2007, NERC will be responsible for implementing mandatory electric reliability standards across the North American grid. By partnering with NERC, the NEB is able to promote mandatory reliability standards for international power lines under the NEB's jurisdiction.

Breaking from a two-year increase in net electricity exports, Canada's total net exports decreased from 23.6 terawatt hours in 2005 to 17.4 terawatt hours in 2006. However, 2006 net exports were 0.7 terawatt hours above the five-year average. Net revenues also declined from \$1.9 billion in 2005 to \$1.3 billion in 2006 and were below the five-year average by \$0.1 billion. The import price declined from \$66 per megawatt hour in 2005 to \$49 per megawatt hour in 2006, while the export price declined from \$73 per megawatt hour in 2005 to \$61 per megawatt hour in 2006. These declines reflect the mild weather and lower natural gas prices across Canada throughout 2006. However, the 2006 net revenue is on par with the five-year average which suggests that economic gains are still being achieved despite the increase in local demand and the fluctuations in supply, particularly hydropower generation, that have occurred over the past five years.





EFFICIENT ENERGY INFRASTRUCTURE AND MARKETS

The NEB influences efficient energy infrastructure and markets through its regulatory decisions related to pipeline facilities, pipeline tolls and tariffs, and energy imports and exports. In pursuing the goal of economic efficiency, the Board strives to provide effective regulatory processes and foster adequate energy infrastructure and informed energy markets.

EFFECTIVE REGULATORY PROCESSES

Effective regulatory processes help create the conditions required for investors and industry to proceed with needed new energy projects or infrastructure. The NEB understands that unnecessarily slow, lengthy or complicated regulatory processes lead to delays in infrastructure development, increased costs and, in some cases, abandonment of a project. By streamlining the regulatory processes and working proactively with other stakeholders, the NEB has been successful in reducing or eliminating obstacles to development while ensuring it is conducted responsibly.

SERVICE STANDARDS

In today's results-based management environment, service standards have become an essential tool for building effective citizen-focused service in organizations. The NEB launched a program of service standards in 2005 for many of the NEB's regulatory functions and services to help manage the expectations of Board stakeholders. Table 1 identifies service standards for the various service-oriented tasks at the NEB.

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NEW ELECTRICITY EXPORT APPLICATIONS SERVICE STANDARDS

The Board's standard for electricity export applications has been 80 per cent of all routine applications completed within 75 days of the receipt of a complete application. In 2006, the Board received 10 electricity export applications. Six were routine and were processed within the service standard. In four cases, the Board was not able to meet its service standards due to applicant delays in completing the appropriate paperwork and staff turnover. As a result, the Board is developing supporting tools and procedures to help improve its service standard success rate in 2007. In addition, the Board adopted new service standards for implementation in January 2007 for electricity export applications. The format and approach of the new standards are comparable to the section 58 applications.

The Board will now categorize each electricity export application into one of three categories based on the complexity of the issues associated with the application. Depending on the category assigned, each application will have a target date for release of the Board's decision.

Table 2 summarizes the new service standards for electricity export applications.

Category C applications are very complex and can be precedent setting. As such, the Board has not defined a service standard as the decision timelines are highly variable for these rare applications.

SERVICE STANDARDS FOR APPLICATIONS NOT REQUIRING A HEARING

The Board receives some applications which do not require a public hearing in order to make a decision. For example, an application to build a pipeline shorter than 40 kilometres in length is normally considered under Section 58 of the *National Energy Board Act*. Table 3 shows the service standards and results for Section 58 applications.

The NEB has been working to reduce cycle times for routine applications by applying a risk-based lifecycle approach that maximizes the use of existing NEB tools and resources. As a pilot project, the NEB used this risk-based lifecycle approach to process two of the six Category A applications assessed by the NEB in 2006. As a result of this new approach, the average cycle time for the two pilot applications was 17 per cent less than that for the other four applications.

ADEQUATE ENERGY INFRASTRUCTURE

Adequate energy infrastructure is essential to an effectively functioning energy market. Inadequate pipeline capacity reduces a shipper's ability to transport energy products to market and causes reduced revenues for producers, lower income tax revenues to governments, and potentially higher prices for consumers. For example, when shippers request transportation for more crude oil than a pipeline can transport, each shipper is required to cutback or 'apportion' its shipments. When pipeline capacity is constrained, oil may be shut-in or shippers may be forced to sell their products at lower prices in less attractive markets because of surplus supplies. For example, discounts on heavy oil and light crude oil tend to increase when there is inadequate pipeline capacity or a lack of available markets. In late 2006, synthetic crude oil was discounted by up to \$5 per barrel largely because of inadequate pipeline capacity. Last year, the National Energy Board considered two applications for pipeline expansions: TMX Anchor Loop Project and the Keystone Oil Pipeline Project. The Board expects to receive further applications for increased oil pipeline capacity in the future.

CRUDE PIPELINE CAPACITY TIGHT IN 2006

Increasing production from the oil sands, driven by high crude oil prices and strong U.S. demand has resulted in tight pipeline capacity out of the Western Canada Sedimentary Basin. On several occasions all the major export pipelines have been at capacity or under apportionment.

In 2006, Enbridge Pipeline Ltd. (Enbridge) operated at about 85 per cent of capacity, with the actual throughput averaging 245 000 cubic metres (1.5 million barrels) per day (Figure 4). Capacity was adequate in the first half 2006; however, in the third and fourth quarters of 2006, Enbridge experienced apportionment on many of its lines. Increased oil sands production and favourable light crude and synthetic pricing resulted in higher throughputs to export markets and to refineries in Ontario. The reversals of the Spearhead and Mobil pipelines that deliver western Canadian crude oil into the U.S. Midwest and the U.S. Gulf Coast also contributed to an increase in throughputs on the Enbridge system.

The Terasen pipeline system operated at approximately 83 per cent of capacity based on a combined light and heavy crude capacity of 35 750 cubic metres (225 000 barrels) per day. In 2006, the Terasen pipeline was unable to ship all volumes offered to the company on a number of occasions as an increase in transportation of heavier crude oil volumes reduced available capacity. On 17 February 2006, Kinder Morgan applied to the Board to loop and expand the pipeline

Table 1: National Energy Board Service Standards and Results in 2006

Task	Service Standard	No. of Applications or Requests in 2006	Results
Release of Hearing Decision	80% complete within 12 weeks following a public hearing	6	100%
Authorization for export of oil, natural gas, and natural gas liquids; and import for natural gas	2 working days (Short term orders only. Long term licences could be subject to a full hearing process.)	Oil & Petroleum Products -107 Natural Gas exports and imports -161 Natural Gas Liquids -114	100%
Electricity Export Applications	80% of routine applications completed within 75 days *New service standards will be applicable as of 1 January 2007.	10	33%(1)
COGO Act Applications to drill a well	Decision rendered within 21 calendar days of the receipt of a complete application	15	100%
COGO Act Geological and Geophysical Applications	Decision rendered within 30 calendar days of the receipt of a complete application	23	100%
CPR Act Applications	80% of decisions rendered within 90 calendar days from the day that all information is available to begin the evaluation	2	100%
Financial Audits	80% of draft audit reports will be sent to the company within 8 weeks of field work completion	2	100%
Landowner Complaints	80% resolved within 60 calendar days of receipt of the initial complaint (subject to the complexity of the complaint)	20	94%
Responding to NEB library requests	Respond to requests within one working day of receipt	1531	100%

⁽³⁾ The service standard for four electricity export applications was not met due to applicant delays and staff turnover.

Table 2. Service Standards for Electricity Export Applications Effective 2007

Category	Complexity of Issues	Electricity Export Decision Release
А	Minor	80% of decisions released within 40 calendar days following the completion of the Notice of Application period
В	Moderate	80% of decisions released within 90 calendar days following the completion of the Notice of Application period
С	Major	No service standard

Table 3: Service Standards Results for Section 58 Applications

Category	Category Description	Service Standard	No. of Applications in 2009	Results Achieved	Average Cycle Timus
A – Section 58	Minor complexity of issues with no third party interest	80% completed within 40 calendar days of the receipt of a complete application.	6	83%	34 days
B – Section 58	Moderate complexity of issues with possible third party interest	80% completed within 90 calendar days of the receipt of a complete application.	. 18	89%	71 days
C – Section 58	Major complexity of issues with likely third party interest	80% completed within 120 calendar days of the receipt of a complete application.	2	100%	108 days

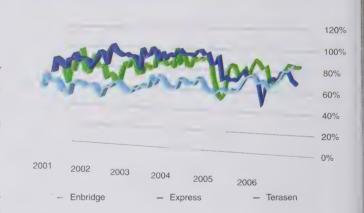
by 6 360 cubic metres (40 000 barrels) per day. The Board approved the TMX-Anchor Loop Project application on 26 October 2006 after an oral public hearing. The additional capacity will come into service in 2008.

The Express Pipeline Ltd. operated on average at 80 per cent of capacity with the throughput averaging 35 000 cubic metres (221 000 barrels) per day. Increased crude oil production in the Rocky Mountain Region of the United States (Petroleum Administration Defense District IV) has resulted in apportionment on the Express/Platte system.

In addition to Kinder Morgan's application to the Board, in the second quarter of 2006, TransCanada PipeLines Ltd. and TransCanada Keystone Pipeline GP Ltd. filed an application with the Board for leave to transfer certain natural gas pipeline facilities forming part of the TransCanada Mainline to Keystone, for use in crude oil service. An oral public hearing convened on 23 October 2006, concluded on 14 November. On 12 December 2006, TransCanada Keystone Pipeline GP Ltd. (Keystone) filed an application to construct and operate the Canadian portion of the Keystone Pipeline Project.

The Cochin Pipelines Ltd. System (Cochin) is the largest and longest Natural Gas Liquids pipeline in Canada. In 2006, the Cochin system operated at around 70 per cent capacity, with actual throughput averaging 7 800 cubic metres (49 140 barrels) per day. In March 2006, Cochin suspended ethylene shipments due to a defect found in the U.S. portion of the pipeline, and voluntarily reduced the pipeline's pressure. Cochin has informed shippers that the pipeline will run at reduced pressure until at least fall 2007.

FIGURE 4 - OIL PIPELINE CAPACITY UTILIZATION



WHAT IS HEAVY CRUDE?

Heavy crude, such as that extracted from Alberta's oil sands, is generally defined as oil that has a specific gravity higher than 900 kilograms per cubic metre. Since heavy crude has a higher viscosity than light crude, it reduces the capacity of the pipeline. Transporting heavy crude oil may also require increased pumping power, heating, or blending with diluent (lighter liquid hydrocarbons) to help it move through the pipeline. Additionally, heavy crude commonly contains impurities such as sulphur or water which may necessitate increased monitoring and maintenance activities on pipelines carrying heavy crude.

Without thylene in the pipeline, propane and ethane shippers are not expected to face apportionment.

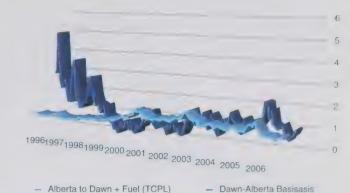
The NEB is concerned about the adequacy of oil pipeline capacity to carry oil and oil products from western Canada to export and domestic markets. The industry is considering a variety of options to increase pipeline capacity which could result in applications to the Board. The Board believes that it is most appropriate for industry to decide which pipeline expansion projects it wants to support. The Board's role is to provide efficient and effective regulatory processes that do not unduly delay these projects, while at the same time ensuring that projects are built responsibly.

NATURAL GAS PIPELINE CAPACITY GENERALLY ADEQUATE

In contrast to crude oil production, natural gas production has been fairly constant since 2001. At the same time, consumption of natural gas in Alberta is increasing, meaning there is less natural gas available to ship out of the province. Consequently, the capacity on natural gas pipelines has generally been adequate to transport natural gas from the Western Canada Sedimentary Basin to markets in Canada and the United States. Pipelines that move natural gas from British Columbia to the U.S. Pacific Northwest and California still have adequate capacity as demand from those regions has been relatively flat in recent years. Pipelines bringing gas from fields located in offshore Nova Scotia also have adequate capacity.

Figure 5 shows the basis, or the difference, in natural gas prices between the Alberta border and the Dawn delivery point in south western Ontario. It also compares the price difference with the firm service toll (including fuel costs) between these two points on the TransCanada PipeLines system, the largest natural gas transmission system in Canada. The fact that the price difference is typically lower than the firm service transportation toll indicates that there is adequate pipeline capacity in place. The Board tracks similar data for other Canadian natural gas pipeline corridors and is satisfied that there is generally sufficient natural gas pipeline capacity. In late 2005 and early 2006, as a result of hurricane damage, there was a short-term push to move more natural gas eastwards to replace lost production from the Gulf Coast. During the rest of 2006, as storage filled, there was less demand to move natural gas to eastern markets, and the basis returned to its expected level.

FIGURE 5: COMMODITY PRICE DIFFERENTIALS (Dollars per gigajoule)



ELECTRICITY GRID CAPACITY

Although total inter-provincial and international power lines regulated by the Board account for less than one per cent of all transmission infrastructure in Canada, these facilities are important conduits for electricity trade between Canada and the United States. They enable commercial opportunities and improve the electric reliability of bulk power systems on both sides of the border.

PIPELINE SERVICES SURVEY HIGHLIGHTS

Pipeline companies offer a variety of services to their shippers; services such as firm service, interruptible service or short-notice service among others on natural gas pipelines or the ability to transport different types of product on oil pipelines. For the most part, the tolls and tariffs paid for these services are determined through negotiated settlements between the pipeline company and its shippers.

Each year, the Board surveys the customers of the pipeline companies it regulates to gather feedback on such issues as a pipeline's physical reliability and the suite of services offered by the pipeline company. This direct feedback is just one of the ways the National Energy Board gathers evidence to determine whether the Canadian energy and transportation markets are working well, one of the Board's primary goals.

Shippers who responded to the NEB's 2006 pipeline services survey gave the physical reliability of pipeline operations top marks with an average score of 4.06 out of five while satisfaction with the competitiveness of the pipeline company's transportation tolls ranked the lowest with an average rating of 3.02 out of five. Overall, shippers remain reasonably satisfied with the services provided by the pipelines and the NEB. However, pipeline companies also rated lower in the areas of innovation and improvement and their collaboration processes.

A summary of the 2006 aggregate results was posted in May on the Board's website at www.neb-one.gc.ca. The account includes the industry average and distribution of responses for each question as well as a summary of major themes. The Board provided each pipeline company and its shippers with detailed company-specific results, including comments received from shippers.

EFFICIENT AND INFORMED ENERGY MARKETS

The NEB continually monitors Canadian energy markets to ensure that Canadians have access to Canadian-produced oil, natural gas and electricity on terms and conditions that are not less favourable than those available to export customers. The Board also provides data and analysis on a wide range of topics, including energy export volumes and prices, developments in natural gas, crude oil and electricity markets; assessments of the supply, demand and future deliverability of natural gas and oil; and periodic long-term outlooks for Canada's energy future.

Providing and interpreting energy market information contributes to the efficient operation of energy markets. Investors, industry planners and consumers can make more informed decisions when they have accurate information provided by an impartial agency such as the NEB. Following is an overview of energy market trends and developments observed in 2006. More detailed assessments can be found in the publications listed at the end of this section and on the Board's website and a plain language discussion of Canadian energy markets is posted in the Energy Pricing section of www.neb-one.gc.ca.

CRUDE OIL MARKET

In 2006, the crude oil market functioned effectively, meaning Canadians had access to Canadian crude oil at a similar price to that paid by export customers (Figure 7).

Canadian crude oil prices remained high during the first half of 2006 – beginning the year at C\$72.20 per barrel and steadily climbing throughout the summer. On 14 July light oil prices posted at Edmonton reached record highs at more than C\$90.00 per barrel. This was largely a result of continuing strong demand in the United States coupled with geopolitical tensions and supply disruptions in Nigeria. Oil prices began their steep retreat in August and declined further through the fall, to close the year at around C\$68.51 per barrel, a drop of 24 per cent.

The restart of production at oil sands upgrading facilities, expansion of other facilities in the third quarter of 2006, and an ample supply of offshore light crude oil destined for the United States, resulted in a discount for Canadian conventional and synthetic sweet crude oil. In addition, high inventory levels, a lack of hurricane activity and easing geopolitical tensions contributed to this price drop.

NATURAL GAS MARKET

In 2006 domestic prices at AECO-C, the main pricing point for natural gas in Alberta, were usually equal to or lower than natural gas prices at export points in Eastern Canada. This indicates that Canadians are paying no more than export customers for natural gas purchased in Alberta and suggests economic efficiency in the natural gas market.

ENSURING EFFICIENT ENVIRONMENTAL ASSESSMENTS

When NEB staff became aware of the proposed TMX - Anchor Loop pipeline through Jasper National Park and Mount Robson Provincial Park, they recognized the potential for controversy and the duplication of effort by federal and provincial departments in the environmental assessment process. At a very early stage in the application process, NEB staff began working closely with Parks Canada to establish a coordinated environmental assessment process in which federal and provincial departments

with environmental assessment responsibilities participated. As a result, an environmental screening report designed to meet the needs of federal and provincial parties in reaching their own determination under the *Canadian Environmental Assessment Act* or other applicable environmental assessment legislation, was produced which minimized potential duplication in the environmental assessment of the project.

The relatively small number of buyers and sellers in the British Columbia and Maritime gas markets presents a greater challenge for monitoring the equivalency of domestic and export natural gas pricing. The NEB continues to track prices and monitor these markets to ensure economic efficiency prevails and the data is available at www.neb-one.gc.ca.

Canadian natural gas prices declined fairly steadily for the first half of 2006—beginning the year at C\$8.89 per gigajoule and reaching a low of C\$3.44 per gigajoule in late September. Demand for natural gas was weak over the winter of 2005/06, with temperatures 10 per cent warmer than average. The warm winter allowed natural gas in North American storage facilities to build to record high levels. Prices remained relatively weak all year as natural gas continued to be put into storage. There was some strengthening of natural gas prices during July and August as a heat wave across most of the large population centres of North America resulted in increases in electric power demand for air conditioning. During such peak times, natural gas is called upon for electricity generation and this year, there was an unprecedented withdrawal of natural gas from storage during the summer. In spite of the summer draw, natural gas storage was full in all regions, before the winter heating season started.

ELECTRICITY MARKET

The ability to export electricity when the economics are favourable has provided provincial electric utilities and governments with a key source of revenue, particularly in the hydropower-generating provinces. Usage of international power lines suggests that there is adequate transmission available although there may occasionally be constraints during peak periods.

ENERGY MARKET ASSESSMENT REPORTS

During 2006, the Board prepared the following publications and statistical reports related to energy commodities, including crude oil, natural gas and electricity: These reports are available on the NEB's website at www.neb-one.gc.ca.

Northeast British Columbia's Ultimate Potential for Conventional Natural Gas – Prepared in cooperation with the British Columbia Ministry of Energy, Mines and Petroleum Resources, this report presented the results of a resource assessment for conventional natural gas in that region and also discussed the potential for both conventional and unconventional natural gas in the province as a whole.

FIGURE 6: NET EXPORT REVENUES BY COMMODITY (Billions of CDN dollars)

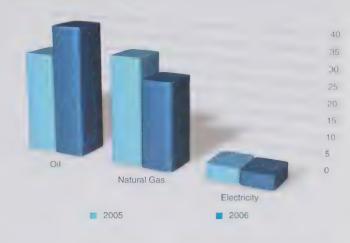
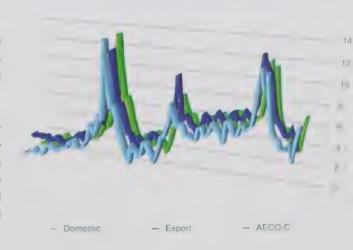


FIGURE 7: LIGHT CRUDE OIL POSTED AND EXPORT PRICE AT EDMONTON (CDN dollars per barrel)



FIGURE 8: EASTERN EXPORT AND DOMESTIC GAS PRICE AT THE ALBERTA BORDER (CDN Dollars per barrel)



Natural Gas for Power Generation: Issues and Implications – This report analyzes the growing demand for natural gas-fired electricity generation in North America and the implications and issues associated with that growing demand.

Short-term Canadian Natural Gas Deliverability 2006-2008 – In this annual energy market assessment, the NEB reviews the volume of natural gas that can be delivered to markets from all Canadian sources in the next three years.

Emerging Technologies in Electricity Generation – This report provides information on the status and prospects of emerging technologies, including such renewable technologies as wind power, small hydropower and biomass, as well as clean coal technologies. It identifies the barriers to growth in 'greener and cleaner electrical generation' and gives suggestions on how those barriers can be overcome.

Canada's Oil Sands - Opportunities and Challenges to 2015: An Update - The new report increases the NEB's 2004 oil sands production estimate by almost 40 per cent to 3 million barrels per day by 2015.

Canadian Hydrocarbon Transportation System: Transportation Assessment – This report examines the adequacy and economic efficiency of the more than 45 000 kilometres of pipelines regulated by the NEB.

In 2006, the Board began releasing semi-annual outlooks of Canadian energy markets. These outlooks assess the supply and demand balance going into the heating and cooling seasons and provide the Board's expectations of how the markets will perform over the next few months.

In January 2006, the NEB launched a new consumerfocused section within its website to provide Canadians with information about energy pricing in an easy-to-understand format. The energy pricing section examines oil, natural gas, propane and electricity and attracted strong interest, recording more than 10 000 visits in 2006.

INDEPENDENT, FAIR REGULATORY MODEL SOUGHT WORLDWIDE

The NEB has been chosen as a model for countries seeking to develop a transparent, impartial regulatory process. Staff have traveled to China, Japan and Brazil to discuss the Board's regulatory process and the value of a neutral, independent agency that operates at arm's length from the government. In November, the NEB hosted a delegation from South Africa as their new natural gas regulatory agency is largely modeled after the NEB.



"One of the National Energy Board key values is a commitment to accountability. We hold ourselves accountable to meeting service standards that provide our stakeholders with clear, transparent expectations and a greater degree of certainty."

Gaétan Caron Vice-Chairman, National Energy Board



"Thank you for providing me with a copy of your recent report Short-term Canadian Natural Gas Deliverability. The National Energy Board continues to provide an interactive and real time perspective for North American companies charged with developing an accurate view on the future outlook of this important piece of the natural gas supply puzzle."

Tom Quine President, Northstar Industries, Inc.



SAFETY, SECURITY AND THE ENVIRONMENT

The NEB is responsible for ensuring the regulated energy industry operates in a manner that protects the employee, contractor, public and environment. The Board's mandate includes oversight for the security of pipelines, associated pipeline facilities, and international power lines. Regulated companies have the primary responsibility for safety and environmental protection because they are the designers, builders and operators of the facilities. The Board ensures that companies identify and effectively manage the safety, security, environmental, socio-economic and land risks throughout the lifecycle of regulated facilities.

SAFETY PERFORMANCE

In March 2006, the NEB published Focus on Safety and Environment – A Comparative Analysis of Pipeline Performance 2000-2004. This is the fourth report comparing the safety and environmental performance of pipeline companies regulated by the Board with comparable industries nationally and internationally. This report is published every

The NEB regulates 104 pipeline companies with more than 45 000 kilometres of pipeline – that's enough to wrap around the planet.

spring and includes data from the calendar year ending approximately 15 months earlier.

The 2006 report uses eight key indicators to evaluate performance in the areas of safety, integrity management, and environmental management. The NEB obtained data for the report through the Onshore Pipeline Regulations mandatory reporting requirements and through voluntary reporting by regulated companies under the Safety Performance Indicators Initiative. Using statistics provided by companies operating approximately 94 per cent of the total length of NEB-regulated pipelines, the report presents the following findings, which include data up to the end of the 2004 calendar year:

- For the seventh consecutive year, no fatalities occurred on NEB-regulated pipelines.
- 2004 was the second consecutive year in which there
 were no reported ruptures. The sophisticated, proactive
 nature of company integrity management programs ended
 a rupture pattern averaging 2.5 ruptures annually from
 1991 to 2003.
- The rate of injury to contract workers dropped by more than 50 per cent compared with 2003. However, these results are still nearly three times higher than the employee injury frequency.
- There have been no liquid or natural gas releases from NEB-regulated pipelines in the last two years. A release is caused by a rupture or hole in the body of a pipeline.

Subsequent to the publication of the report, new data for 2005 and 2006 was obtained as mandatory and voluntary company reporting continued. Following are key observations developed from this information:

- No hydrocarbon pipeline ruptures and no fatalities occurred at NEB-regulated hydrocarbon facilities.
- One commodity pipeline failure occurred in 2006. A sulphur commodity pipeline was allowed to solidify, due to an extended power outage. The pipeline then failed from overpressure while the company was in the process of preparing the pipeline for operation.
- In December 2006, a fatality occurred during the construction of an NEB-regulated international power line.
 Paul Crocker, a 47-year-old contractor from Nova Scotia, was killed when a section of crane he was dismantling fell on top of him. This was the first fatality at an NEB-regulated facility in more than nine years and the Board is reviewing the accident.

The full report and a related fact sheet can be downloaded from www.neb-one.gc.ca.

SAFETY AND SECURITY

The potential for human-caused and natural disasters to affect energy facilities in Canada is a major concern for Canadians and all levels of government. The ice storm of 1998 and Hurricanes Juan (2003) and Katrina (2005) demonstrated the potential for massive energy infrastructure damage due to weather events. The events of September 11, 2001 exposed the vulnerability

of North American infrastructure and transportation systems to attacks by terrorists. The National Energy Board regulates approximately 45 000 kilometres of this country's pipeline system and approximately 1 100 kilometres of its vast electricity infrastructure grid. However, along with Natural Resources Canada, who plays a leading role in ensuring the effective functioning of energy supply systems in Canada, the NEB has been responsible for the security of Canada's federally-regulated energy infrastructure since April 2005.

Security management assessments completed by the NEB and the Alberta Energy and Utilities Board resulted in a single common report, featuring a mutually agreed-upon assessment protocol and joint recommendations. This collaborative endeavour was the first of its kind in Canada and possibly North America.

During the past year, the NEB has moved forward on several different initiatives designed to strengthen the security of Canada's energy infrastructure. In May 2006, the Board released a Proposed Regulatory Change (PRC 2006-01) outlining proposed changes to the Onshore Pipeline Regulations, 1999 (OPR 99) and the National Energy Board Processing Plant Regulations (PPR) to address pipeline security management. Through PRC 2006-01, the Board conveys its expectation that companies have a Pipeline Security Management Program which is systematic, comprehensive and proactive in managing security risks. The NEB also expects companies to integrate the program within their overall management systems to provide for safe and secure practice in the design, construction, operation and maintenance of a pipeline system. These expectations and guidance were considered to be in effect as of 31 July 2006, and will remain in effect until the revised regulations are legislated.

As part of an initiative to prepare the scope for a security management standard for the oil and gas industry, the Board led a task force under the auspices of the Canadian Standards Association (CSA) called the Strategic Steering Committee on Petroleum & Natural Gas Industry Systems. In November 2006, 35 people from across the oil and gas industry, the public service and interested stakeholders attended an ad hoc committee meeting in Calgary. The committee was successful in developing a proposal for a CSA consensus standard on security management for the oil and gas industry. The standard may also be adopted by reference to the Board's regulations and by applicable provincial regulations across Canada.

The Board's new security mandate also provides for the regulation of the security of international power lines and designated inter-provincial power lines under its jurisdiction. In this regard, the Board supported the move towards mandatory reliability standards with the recognition of the North American Reliability Council as an Electric Reliability Organization. In addition, the NEB and Natural Resource Canada's Energy Infrastructure Protection Division discussed using a collaborative approach to completing joint security vulnerability assessments on international power lines.

In an effort to address overlapping and adjoining jurisdictions, common regulatory objectives, and the need for effective communication about security management, the Board develops working agreements with federal and provincial government partners. In January 2006, the NEB signed a Memorandum of Understanding with the Alberta Energy and Utilities Board to facilitate coordination and cooperation between the two regulators. Under the Memorandum of Understanding, the two agencies jointly completed four of the six scheduled assessments in 2006 and planned the other two for early 2007. The security management assessments completed to date reflect a cooperative effort that culminated in a single common report featuring a mutually agreed-upon assessment protocol and joint recommendations.

This endeavour was the first of its kind in Canada and possibly North America. The NEB is engaged in talks to develop similar agreements with other provinces, including British Columbia's Oil and Gas Commission and New Brunswick's Public Safety, Security and Emergencies Directorate, to assist the respective

jurisdictions in managing security-related matters in a more effective and cooperative manner.

The Board will continue to promote security awareness in the energy field and leverage relationships with its provincial and federal partners, international counterparts and the industry to ensure that energy infrastructure protection is managed in a responsible manner and in the interest of all Canadians. In 2007, the NEB plans to request security-related incident information from NEB-regulated companies as part of their annual performance indicator reporting.

MONITORING COMPLIANCE

The NEB monitors activities undertaken by regulated companies from the initial design of facilities through to abandonment. This regulatory function assesses compliance with conditions attached to the original Order, Certificate or Authorization, and ensures the company is designing, constructing, operating and abandoning its facilities in accordance with the applicable regulations under the NEB Act and the *Canada Oil and Gas Operations Act*.

In 2006, the NEB began using a compliance resource prioritization model to plan compliance verification activities such as inspections, audits and meetings. The 2006 Compliance Verification Strategy was developed based on an analysis of company performance in the areas of program adequacy, implementation and effectiveness. Significant improvements have been made since implementation of this approach and the NEB is committed to its use in future years.



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INSPECTIONS

The NEB inspects its regulated pipelines and facilities throughout all phases of development, operation and abandonment. Qualified and duly designated inspection, safety and conservation officers confirm compliance with legal requirements and other conditions of project approval. In addition to inspections carried out under the NEB Act and the COGO Act, several NEB inspectors have also been designated as Health and Safety Officers by Human Resources and Social Development Canada who enforce the requirements of Part II of the *Canada Labour Code* among NEB-regulated companies.

Inspections provide valuable data related to the implementation of a company's programs and serve to reinforce the working relationship between regulated companies and the NEB. As a respected and visible regulator, the NEB obtains compliance from companies through discussion and rarely needs to take enforcement action beyond the receipt of an Assurance of Voluntary Compliance.

PIPELINE OPERATION AND MAINTENANCE ACTIVITIES

In 2005, the NEB introduced a risk-based approach for inspecting selected pipeline operation and maintenance activities. This risk-based approach clarifies and streamlines regulatory oversight of activities integral to the operation of approved facilities, allowing the Board and regulated companies to focus resources on non-routine activities.

In 2006, the Board received 66 notifications of operations and maintenance activities. This is a result of the substantial reduction in the amount of time required to provide effective regulatory oversight. The Board conducted a review of its approach to regulating operations and maintenance activities in August 2006 and implemented several minor improvements to its processes. This approach has resulted in a significant benefit to regulated companies by reducing the lengthy application process for operations and maintenance activities.

Table 4: Facilities Inspections

In 2006, N	IEB inspection officers and personnel carried out:
13	Safety and engineering inspections on NEB-regulated projects under construction
10	Environmental inspections on NEB-regulated projects under construction*
10	Inspections of NEB-regulated facilities under operation
11	Pipeline crossing inspections
5	Post-construction environmental inspections on recently-completed construction projects, including an inspection of operations and maintenance activity
3	Inspections in response to environmentally-related landowner concerns
4	Safety and engineering inspections of operations and maintenance activities
4	Environmental inspections of operation and maintenance activities
5	Incidents resulting in an on-site response by NEB personnel
9	Company emergency exercises in which NEB personnel observed, assessed and participated
3	Compliance-related information sharing meetings
12	Workplace inspections under the Canada Labour Code
	Pre-construction inspection

Two of these inspections were carried out simultaneously with safety and engineering inspections.

FNVIRONMENTAL CONDITIONS

Through inspections and company filings, the NEB monitors not only company compliance with the conditions on Board Orders or Certificates but the effectiveness of those conditions in obtaining the desired safety and environmental results. In 2006, 39 environmental conditions, such as mitigation measures or monitoring commitments, were confirmed to be effective in achieving their desired outcomes.

In 2006, 100 per cent of conditions evaluated by the NEB were confirmed as effective in achieving desired safety and environmental results.

NON-ACCORD CANADA LANDS

On Canada's non-accord, or frontier lands (lands not subject to a federal/provincial shared management agreement), conservation and safety officers inspected geophysical and drilling programs and production operations of companies to confirm compliance with NEB-approved program and relevant regulations. Occupational safety and health matters were also considered during these inspections. In 2006, conservation and safety officers conducted 24 inspections of activities and facilities on non-accord lands. Ten assurances of voluntary compliance were issued under the *Canada Labour Code* Part II and three non-compliance directions were issued under the *Canada Oil and Gas Operations Act*. Compliance was received to the satisfaction of the conservation and safety officers either while still on-site or within an agreed upon time period.

MANAGEMENT SYSTEM AUDITS

The NEB audits the management systems of NEB-regulated companies to evaluate compliance with the NEB and COGO Acts, the *Canada Labour Code* Part II, relevant regulations, and a company's own policies, practices and procedures. An audit typically includes evaluation of a company's design and construction, pipeline integrity management program, emergency preparedness and response program, safety program and environmental protection program.

The Board continued to update its management system audit program and improve planning processes, program implementation elements, performance measures and self-assessment procedures. The improvements were defined and prioritized through analysis of previous audits and an assessment of the Board's management system audit program policy, goals, objectives, processes and procedures.

In 2006, the NEB conducted two new audits and closed four previously conducted audits with 21 associated findings.

In follow-up to NEB audit reports, companies file a Corrective Action Plan with the Board that addresses each Finding. The Corrective Action Plan must be completed and verified before a Finding can be officially closed out. To date, audited companies have completed corrective actions for 72 per cent of the Findings associated with Corrective Action Plans, and 96 per cent of completed corrective actions have been verified and closed out by the Board. This indicates that the audit program and follow-up procedure are supporting the Board's mandate for protecting the public, employees and the environment.

INTEGRATED COMPLIANCE

Introduced in 2004, the NEB's Integrated Compliance Project is the basis of a program that will improve the use of compliance data, trends and knowledge related to safety and environment issues affecting NEB-regulated facilities.

While initially focused on the post-approval component of the NEB's activities, the scope of the Integrated Compliance Project grew in 2006 to more extensively address the NEB's project assessments. As a result, the Integrated Compliance Project has evolved to represent a lifecycle approach to the regulation of facilities, with more integration between the project assessment and post-approval activities. The development of the lifecycle approach to regulation will continue through 2007.

INCIDENTS AND EMERGENCIES

Emergency Management

The NEB's primary role during an emergency is to monitor the company's response and ensure that all reasonable actions were taken to protect employees, the public and the environment. The NEB also verifies that regulated companies have adequate and effective emergency management programs that mitigate the impacts associated with an emergency situation.

Regulated companies are required to provide current and upto-date versions of their emergency response plans to the NEB for review. In February 2006, the NEB completed a review and renewal of its own emergency response procedures, including the development of an Emergency Management Program. The NEB currently maintains a manned emergency response contact phone and call down system which operates 24/7, 365 days per year. In 2006, NEB personnel responded to five on-site incidents.

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The NEB encourages and participates in tabletop and full-scale emergency response exercises sponsored by pipeline companies. In 2006, the Board expanded this activity to include participation in one exercise for companies operating under the *Canadian Oil and Gas Operations Act* and eight NEB-regulated company exercises.

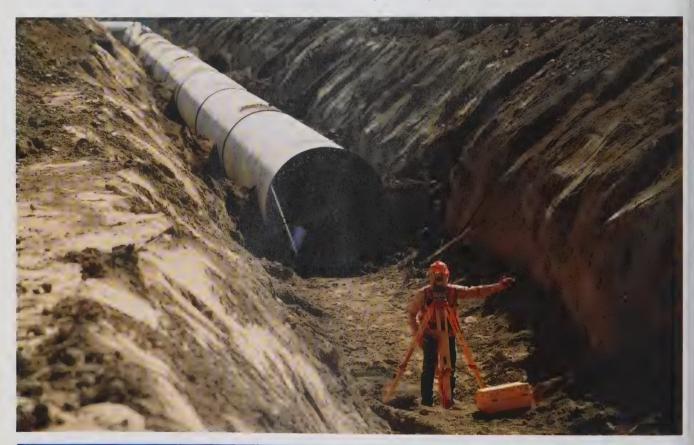
Incidents

The NEB requires the companies it regulates to report certain events, which are defined as incidents. These reports provide the Board with the information necessary to determine the appropriateness of the companies' response to events which could have adverse effects on safety, the environment or the security of facilities. In addition, reporting provides the NEB with the opportunity to investigate, or, when appropriate,

initiate an emergency response. When investigation determines that corrective actions are required, the Board ensures they are taken, either by the company individually or by the industry as a whole.

The following incidents must be reported to the NEB as they occur:

- the death or serious injury of a person;
- a significant adverse effect on the environment;
- an unintended fire or explosion;
- the unintended or uncontained release of low vapour pressure hydrocarbons in excess of 1 500 litres;



PIPELINE RUPTURE FREQUENCY DECLINES

The industry continues to show a significant decline in rupture frequency attributable to the effectiveness of the integrity management programs implemented by companies over the past 10 years. The NEB was the first regulator in North America to require companies to have documented integrity management programs.

Since then, integrity management programs have become universally accepted in the global pipeline industry. Details of ruptures that have occurred on NEB-regulated pipelines dating back to 1992 are published in the Safety and Environment section of www.neb-one.gc.ca

- the unintended or uncontrolled release of gas or high vapour pressure hydrocarbons;
- the operation of a pipeline beyond its design limits as determined under CSA Z662, CSA Z276 or any operating limits imposed by the Board; and
- within a processing plant, any occurrence that results in or could result in a significant adverse effect on property, the environment or the safety of people.

In 2006, 55 incidents were reported to the NEB compared with 50 in 2005, and 52 in 2004. The increase in reported incidents can be attributed to the Board's efforts to ensure that regulated companies understand their reporting obligations. The NEB is in the process of reviewing reporting requirements in an effort to achieve even greater compliance.

The following incidents were reported to the NEB in 2006:

- In late 2006, there was a single fatality during the construction phase of an NEB-regulated international power line. The NEB is conducting a review.
- The NEB has a target of zero ruptures on the pipelines it regulates. In 2006, there were no hydrocarbon pipeline ruptures; however, there was a sulphur commodity pipeline failure in July. A gas plant experienced an electrical failure due to lightning which caused a complete shutdown of the facility including the sulphur commodity pipeline heating elements. This caused the sulphur in the pipeline to solidify which effectively removed the pipeline from operation. Once electrical power was restored, the company attempted to re-melt the sulphur and put the pipeline back into operation. During this process, the pipeline failed from overpressure.

• In 2006, there were a total of 26 hazardous occurrences on non-accord frontier lands, as defined by the Oil and Gas Occupational Safety and Health Regulations under the Canada Labour Code Part II, down from 48 hazardous occurrences in 2005. The majority of these were reportable spills, one occurrence was the loss or damage to a support craft, one was a fire or explosion, and three were disabling injuries. The number of disabling injuries decreased from five in 2005 to three in 2006. This translates into a decrease in the frequency of disabling injuries from 2.72 per million hours worked in 2006.

SPILLS AND RELEASES

In 2006, incidents included 40 gas and liquid releases consistent with 40 releases in 2005 and 37 releases in 2004. A release is caused by a rupture or hole in the body of a pipeline while a spill is generally associated with pipeline construction, maintenance and gas pipeline operations.

Four incidents in 2006 were caused by the failure of the pipe body: one gas release, two liquid hydrocarbon spills, and one liquid sulphur release. The remaining spills and releases were associated with leaks from piping connections or facilities equipment. All of the liquid spills were contained within company property, such as pumps or terminals or within pipeline right-of-ways. Table 5 is a breakdown of reportable releases that occurred in 2006.

SAFETY ADVISORIES

In March 2006, a serious near-miss occurred on an NEB-regulated project site. Two workers were overcome after entering an oxygen-deficient environment that had been created when an accumulator nitrogen backup system was depressurized within the confined space of the accumulator building. The NEB worked with the operator throughout the investigation,

the subsequent recommendations, and the ENFORM Safety Alert issued to industry.

The NEB is committed to sharing the information arising from its investigations in an effort to improve safety in the workplace by preventing similar occurrences.

Table 5: Gaseous and Liquid Release Reported in 2006

Incident	Number of Occurrences in 2006
Natural gas releases of any volume, sweet or sour	19
Low vapour pressure liquid hydrocarbon spills greater than 1 500 litres (all crude oil)	7
High vapour pressure liquid hydrocarbon releases such as natural gas liquids or propane	3
Releases of liquid sulphur, smaller volumes of low vapour pressure liquid hydrocarbons (diesel, gasoline and crude oil), amines, and other fluids used in and around facilities and gas processing plants	11

Spills

During 2006, there was one hydrocarbon spill greater than 100 000 litres or 100 cubic metres from an NEB-regulated pipeline. On 8 November 2006, a hard rubber scraper pig which had previously bypassed the pig receiver in Enbridge's Cromer (Manitoba) Terminal, lodged in a meter manifold causing its overpressurization and failure. All crude oil released during this event (approximately 126 cubic metres) was contained within Enbridge's Terminal. Approximately 114 cubic metres of free product was recovered and the remaining contaminated soil was managed in accordance with Enbridge's contaminated soil handling procedures.

A second incident on 28 November 2006, caused by a failed gasket, resulted in the release of 80 cubic metres of crude oil within the same facility (51 cubic metres were recovered and the rest was managed by Enbridge on site). Also significant in 2006 was a release of 20 to 30 cubic metres of crude oil from a pipe-body defect on an Enbridge pipeline near Provost, Alberta. The leak was identified on 9 August 2006 when a landowner reported a stained patch of soil in his pasture. Affected soil and groundwater appeared to have been confined to the pipeline right-of-way and was remediated by Enbridge.

The NEB's response to hydrocarbon spills includes follow-up activities to confirm that site remediation is carried out. The NEB is currently working to formalize this process. Tools are being developed to enable the NEB to more consistently and efficiently track and manage spill site remediation files. In 2006, the NEB conducted two spill follow-up inspections to assist in resolving outstanding concerns.

On non-accord frontier lands, reportable releases were down about 45 per cent from 38 releases in 2005 to 21 in 2006. The 2006 releases included 13 relatively small (less than 1 500 litre) releases of crude oil, produced-or-otherwise-contaminated water, hydraulic fluid, drilling fluid, and glycol and eight larger releases of 5 to 320 000 cubic metres of fresh or contaminated water.

ENVIRONMENTAL AND SOCIO-ECONOMIC ASSESSMENTS

Regulatory Approach

The NEB uses a risk-management approach to deliver socioeconomic assessments. Routine energy projects require little regulatory intervention at the application stage. Examples include adding a valve or a meter station to an existing pipeline under known conditions. For more complex projects, the Board uses a structured risk-management approach that considers the likelihood and consequence of potential effects. This helps to focus assessment attention and resources on larger or more complex enterprises such as the Mackenzie Gas Project.

The Board strives to continually improve the effectiveness and efficiency of its facility assessments. In 2006, the Board began to clarify and simplify application requirements and associated procedures for assessment of low-risk facilities such as small cross-border pipelines. The objectives are to eliminate unnecessary application requirements and processes for small NEB-regulated pipelines, to maintain a desirable level of regulatory oversight, and to reduce the time and cost associated with regulatory decisions on small, routine pipeline facilities. These measures will better position the Board to match the scope of application assessment to the complexity and risk of each facility application.



Environmental Assessment Coordination

In accordance with Canadian Environmental Assessment Act, the NEB often coordinates its environmental assessment responsibilities with other government departments. On larger proposed projects where a number of government departments may be involved, the Board engages these departments in advance of receipt of an application. In this way, environmental assessment process issues are discussed and agreed upon at an earlier stage, thereby facilitating a more efficient and effective environmental assessment process once an application is received. Pre-application environmental assessment coordination also allows for early public participation in the process.

In 2006, the Board continued to partner with other government departments regarding environmental assessment coordination at both application and pre-application stages. The Board was involved in more pre-application environmental assessment coordination work than ever before, including work on the following proposed projects:

- Enbridge Pipelines Inc.'s Alberta Clipper Pipeline Project, a proposed oil pipeline from Hardisty, Alberta to the Canada-United States border near Gretna, Manitoba;
- Enbridge Pipelines Inc.'s Southern Lights Pipeline Project, a proposed diluent pipeline from the Canada-United States border near Gretna. Manitoba to Edmonton. Alberta:
- TransCanada Keystone Pipeline GP Ltd.'s Keystone Pipeline Project, a proposed oil pipeline from Hardisty, Alberta to the Canada-United States border near Haskett, Manitoba;
- TGS-NOPEC's Labrador Shelf/Davis Strait 2D Marine Seismic Program, a proposed seismic program offshore of Nunavut;
- Aurora Research Institute's Mallik Gas Hydrate Production Research Project near Tuktovaktuk.

SUBSTITUTION UNDER THE CEA ACT

Some CEA Act requirements for major projects partially duplicate NEB Act processes and present an opportunity for increased harmonization and efficiency of environmental assessments. In 2006, the Minister of the Environment approved the substitution of the NEB's hearing process for the environmental assessment of the Emera Brunswick Pipeline application. More information about substitution can be found on page 18 of this report.

TECHNICAL EXPERTISE

In 2006, the Board was instrumental in forming a new standards technical committee under the auspices of the Canadian Standards Association. The committee will develop a consensus standard for security management programs within the oil and gas industry in Canada.

Relevant Canadian standards are incorporated by reference into NEB regulations. As a result, Board staff have been actively engaged in committee work in support of the CSA Z662 Standard on Oil and Gas Pipelines, CSA Z276 Standard on Liquefied Natural Gas, CSA B51 Standard on Pressure Equipment, and ISO/TC 67 (Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries).

The NEB continues to host foreign delegations and provide overviews of the Canadian regulatory framework. In November 2006, our electricity team hosted a knowledge exchange with 18 delegates from South Asia. This event was organized by the U.S. Energy Association and contributed positively to international relations in regulatory areas of mutual interest.

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The Board believes it is important to share its expertise nationally and internationally. During the past two years, NEB staff have made presentations at or actively participated in the organization of major industry events such as the International Pipeline Conference, the Banff Pipeline Workshop, the United Nations Economic Commission for Europe Forum on Pipeline Accidents, the Rio Pipeline Conference, and the CSA Z662 Biennial Forum. The National Energy Board is also a member of the United Nations Ad Hoc Group of Experts, providing advice and expertise in the effort to establish global standards and definitions for petroleum and mineral reserves.

NEB staff co-chaired the organizing and technical committees charged with planning the International Pipeline Conference held in Calgary in September 2006. Our staff also hold executive positions within the American Society of Mechanical Engineers Pipeline Systems Division and the International Petroleum Technology Institute – international non-profit organizations dedicated to spreading advances in pipeline technology throughout the world.

RESEARCH AND DEVELOPMENT

Research and development in the pipeline industry is international in nature. The Board actively monitors research and development by participating in organizations such as Natural Resource Canada's Panel on Energy Research and Development and the Materials Technical Advisory Committee of the CANMET Technology Centre in Ottawa, and through interaction with the U.S. Pipeline and Hazardous Materials Safety Administration.

The Environmental Studies Research Fund provides funding for environmental and social projects pertaining to petroleum exploration, development and production activities on non-accord Canada Lands. The NEB chairs and provides technical and administrative resources for the group's management board, which includes members of industry, the government and the public. In 2006, the management board approved 11 new studies, continued to provide funding to others that were previously approved, and participated in updating the CSA Standard for Offshore Structures.







ENGAGING CANADIANS

The National Energy Board strives to make decisions in the public interest. In 2006, the Board advanced its goal to proactively engage its full range of stakeholders and build effective relationships through face-to-face meetings with people from communities potentially affected by proposed projects. Our public engagement practices involve a broad spectrum of activities such as providing information about the NEB and its mandate, preparing people to participate effectively in Board hearings, involving stakeholders in revising guidelines and regulations, and resolving matters between regulated companies and landowners or other parties.

FAIR, TIMELY AND EFFECTIVE PUBLIC ENGAGEMENT

The Board fulfills its mandate by actively pursuing its goal of effective public engagement. This goal is achieved in part through public announcements and information sessions in potentially affected communities. Information sessions provide an opportunity for people to learn about the NEB's role throughout the lifecycle of the project and to obtain specific information about the hearing process. Pre-hearing planning conferences are sometimes held to obtain public input into the hearing process.

UPHOLDING THE PUBLIC INTEREST

The Board promotes safety and security, environmental protection and efficient energy infrastructure and markets in the Canadian public interest. The public interest includes all Canadians and refers to a balance of economic, environmental and social interests that change as society's values and preferences evolve over time. As a regulator, the Board must consider the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.

The public can participate by:

- attending information sessions and planning conferences;
- becoming an intervenor in the hearing, joining others with common interests to submit a joint intervention, or joining a non-governmental organization;
- submitting a letter of comment or where permitted, by providing an oral statement during the public hearing.

The Board takes a lifecycle approach to regulating facilities which means that a project should remain in the

HOW DOES THE NEB MAKE ITS DECISIONS?

Most major applications to the Board are decided upon only after there has been a public hearing. The public hearing process must be open, fair and objective. The Board must be free from bias and all parties must be aware of all of the evidence that is before the Board so they have the opportunity to speak to that evidence during the hearing.

All communications from parties involved in a public hearing are open and transparent. The Board does not discuss an application with any party outside of the formal hearing process once the application has been filed. After every party has had the opportunity to put their evidence and views before the Board, the Board considers all of the evidence and views before it makes its decision in the public interest.

SPEAKING TO ABORIGINAL COMMUNITIES

During 2006, Board staff traveled to Aboriginal communities in north-central British Columbia and Alberta to raise awareness about the regulatory process in preparation for a pipeline application that has since been deferred. They made presentations at two annual general assemblies of approximately 200 people, an annual assembly of 60 heredity chiefs, a tribal council that represented seven bands and two chief-and-council meetings. Only the first two meetings were scheduled—presenters were invited to the other gatherings as a result of word-of-mouth communications from participants. According to one NEB public engagement team member:

"For the first time, members of these communities got to know who the decision-makers are and understand that the NEB is neutral. It's been quite an opportunity to shed light on a regulatory process that in the past has been seen by the public as mysterious."



Two main issues came to light during discussions with Aboriginal groups:

- Aboriginal communities are concerned that they do not have the capacity to participate effectively in the decision-making process; and
- Aboriginal people want to ensure that their traditional activities are minimally, if at all, affected by projects.



Canadian public interest from its initial design, through its construction, operation, decommissioning and, eventually, its abandonment.

EARLIER ENGAGEMENT WITH ABORIGINAL GROUPS AND COMMUNITIES

Aboriginal communities often hear about a proposed pipeline or other energy-related infrastructure directly from the company that is planning the project, long before an application is filed with the Board. The NEB believes that communities can also benefit from receiving information about our regulatory role and processes at that early stage. As a result, in 2006 the NEB public engagement team and technical advisors provided information to and met with:

- seven Aboriginal communities in north-central British Columbia and two in Alberta that would be affected by the proposed Gateway pipeline;
- an Aboriginal group and residents of Saint John, New Brunswick, who expressed significant interest in the proposed Brunswick Pipeline Project.

FLEXIBLE ENGAGEMENT APPROACHES

The Board recognizes that the nature of its formal hearing processes can make it challenging for members of the public to fully participate. In 2005, a pro-active, more flexible approach was undertaken by NEB staff by visiting 11 northern communities potentially affected by the proposed Mackenzie Gas Project.

In providing information and organizing the Mackenzie Gas Project hearing sessions, Board staff focused on inclusiveness and accessibility. Before the hearing began in January 2006, the NEB hosted a pre-hearing planning conference to gather local opinions on issues, locations, timing, and any other matters related to the hearing process. The NEB used this information to accommodate northern traditions and culture during the hearing. Once started, hearing sessions were less formal. Flexible hours were offered, the hearing room was set up in a circle to reflect northern traditions and Aboriginal drummers performed at the first NEB hearing session in Inuvik.

To further improve and refine its public engagement approaches in northern communities, the Board initiated a Northern Engagement Research Project. During 2006, the methodology of the study was confirmed and visits to four northern communities were planned for 2007.

ADDRESSING DISPUTES

While matters of safety and environmental protection may require a Board decision, there are many other issues related to access to property, access to a pipeline, land reclamation, or timing of activities where the parties are in a better position to determine the best outcomes. In such cases, NEB staff trained in interest-based approaches work with all parties to help facilitate mutually acceptable solutions.

ADDRESSING LANDOWNER COMPLAINTS

Energy companies regulated by the NEB are expected to develop relationships with and involve potentially affected people in project development discussions, during construction and throughout the operation of its facilities. While the Board expects companies to respond to any complaints received from landowners or the public throughout the lifetime of a project, NEB staff provide assistance through the Board's Landowner Complaint Resolution Program when issues cannot be worked out between the two parties.

If a landowner or member of the public contacts the NEB with a complaint, staff will discuss the issues with the parties and support them in reaching a mutually-acceptable agreement without Board involvement. Our goal is to ensure that NEB-regulated facilities are safe and that they are built and operated in a manner that protects the environment and the rights of those affected. The Board also promotes clear, open communication so that the affected parties can make informed decisions and reach agreements. The majority of complaints are resolved at this stage, generally within two weeks of initiating this course of action.

If the issue is complex, or if it is primarily related to safety or the environment, the NEB conducts a field inspection and usually facilitates a face-to-face meeting with the parties. If the parties are amenable, a facilitator will initiate the dispute resolution process and NEB safety or environment inspectors may provide technical advice to help the parties reach a resolution. In the event that the parties still cannot reach an agreement, the matter is referred to the Board for a decision.

During 2006, team members were involved in pipelinerelated issues in British Columbia, Alberta, Saskatchewan, Manitoba and Ontario. In one situation, a family requested NEB assistance to resolve a long-standing complaint. Heavy equipment operating on a pipeline right-of-way running through their property had compacted the soil. The parties agreed that the topsoil had been mixed with less productive layers below that may have resulted in stunted crop growth, diminished fruit production and tree loss. NEB staff traveled to the location, met with the parties, conducted an inspection and facilitated an appropriate resolution dispute session. Within two days, the parties came to an agreement and the landowner complaint was resolved.

Unresolved right-of-way reclamation was one of three main areas of complaint arising from industry operations in 2006. The others involved air emissions such as odours and noise, and issues related to construction and reclamation activities that may affect tile drainage or the natural water flow. Drainage issues can potentially cause water ponding, diminished crop growth or tree loss. The NEB looks for different ways to encourage companies to identify and address landowner concerns more effectively at the earliest stages of a project's lifecycle and consider technologically advanced solutions to address these concerns.

Despite the complexity of these complaints, NEB staff successfully resolved approximately 75 per cent of the complaints through discussion and information sharing, site inspections and/or appropriate dispute resolution sessions. In fact, 94 per cent of all complaints received in 2006 were resolved within 60 days. In reflecting on the challenges and achievements of the past year, a senior member of the team said:

"We started working on the landowner complaint resolution program in 1999. From my perspective, we keep getting better at what we do. There's still room for improvement, but we're communicating better, working more effectively, and we're faster. People are more satisfied with the services we're providing."

RESPONSIVE, RELEVANT AND CLEAR COMMUNICATION

The NEB employs diverse communication strategies to inform Canadians about energy-related issues and facilitate public participation in regulatory processes. Key achievements in 2006 include:

 Developed the Energy Pricing Information for Canadian Consumers section on the NEB website. This new overview is designed to help Canadians understand how energy markets work.

TOPICS OF LANDOWNER COMPLAINTS In 2006, the Board received 18 landowner complaints, the majority of which were related to the following Landowner Rights 28% e.g. Access to property, notification, negotiation of agreements Reclamation 24% e.g. Post construction clean-up 21% Impact Mitigation e.g. Noise, drainage Compensation 15% e.g. the Natural Resources Canada compensation process 12% Pipeline safety *Several landowner complaints had more than one underlying reason.

- Produced semi-annual Summer and Winter Energy Outlooks, available on the NEB's website. These updates offer objective, relevant and timely information and statistics about the short-term outlook for Canada's energy sector.
- Produced numerous publications, multi-media presentations, news releases and fact sheets designed to help Canadians become informed decision-makers.
- Initiated a revitalization of the NEB website. The goal is to build a site that is easier to use and more accessible for all Canadians.

POST-HEARING SURVEYS

The Board believes that one of the best ways to measure our performance is to ask our stakeholders for feedback. Following a hearing, the Board issues an online survey to all registered participants in order to gather feedback on our hearing process. In 2006, the majority of participants agreed or strongly agreed with the statement "Overall, I was satisfied with the NEB."



PEOPLE STRATEGIES

Throughout 2006, the NEB continued to foster strategies and workplace practices that support and encourage our people in their efforts to achieve the highest possible standards of performance. The Board does this through innovative leadership, sound business management and effective decision-making processes that create an environment where employees have the skills, resources and motivation they need to deliver on their commitments and carry out our mandate.

The Board uses a forward-looking human resources strategy designed to attract and retain people with specific skills and experience. This initiative addresses priorities such as recruiting, leadership development, employee engagement, performance management, staffing levels, training effectiveness and succession planning.

Key goals of the strategy include:

- · Attracting and retaining highly qualified people;
- Cultivating a results-based culture of excellence, using tools such as performance management and succession planning;
- Facilitating organizational learning and knowledge-sharing.

On 8 December 2006 the NEB introduced a plan for attracting and retaining staff that includes a market-based allowance for employees working in positions directly related to the energy industry and a pilot pay for performance program for all employees.

CULTURE, CAPACITY AND COMMUNITY

Every day, our employees apply their talent and skill to a broad range of ongoing team projects. The aim and scope of these projects are as diverse as the employees who contribute to them.

The Project Management Office provides business support for effective, efficient project management within the NEB. In 2006, the Project Management Office introduced tools and templates to help project managers identify and manage challenges throughout a project's lifecycle. The Project Management Office also developed a training strategy and initiated a community of practice to assist project managers, help improve their knowledge base and share best practices.

A community of practice is an informal, discipline-focused network whose members meet regularly to share information and knowledge, work collaboratively on solutions to challenges, and learn from one another. At the NEB, a number of active and productive communities focus on topics ranging from sustainable development and leadership to resources for our francophone community.

The NEB is committed to demonstrating excellence in all aspects of its work. In addition to following the Government of Canada's management direction for an accountable government that is responsive to the needs of Canadians, the NEB invests in the people, processes and systems needed to improve results. The NEB focuses on supporting career growth through development plans, mentoring and other opportunities. In particular, the NEB's leadership development program helps leaders and potential leaders develop their skills through training programs offered by the

acclaimed Banff Centre. These courses support the growth of strategic, personal, and team leadership skills.

Training is not only provided to our leadership team but is available to everyone at the NEB. Last year, NEB employees spent more than 14 000 hours in learning activities focused on everything from language skills to seminars in Aboriginal awareness and courses in pipeline corrosion. Staff may also access Campus direct E-Learning through the Canada School for Public Service which provides Public Service employees with over 155 online courses, free of charge.

The NEB recognizes our responsibility to our community. The Board is committed to creating an environment that fosters both personal and professional growth and employees are encouraged to lend their talents to a range of community and volunteer initiatives. Last year NEB employees:

- Raised more than \$58,000 to support the annual United Way/Health Partners campaign;
- Left their cars at home and walked, biked or rode public transportation to work during the Calgary Commuter Challenge;
- Swung hammers for Habitat for Humanity during our Days of Caring Program;
- Pitched in to collect more than 1 400 pounds of clothing, household items and gifts-in-kind to support the Calgary Urban Project Society.

CHALLENGES IN THE JOB MARKET

In the 15 years since moving from Ottawa to Calgary, the Board has never encountered a job market as tight as the one experienced in 2006. Escalating skill shortages and corresponding hikes in wages, benefits and perquisites threatened the NEB's ability to carry out its mandate. The NEB's ability to carry out its mandate. The NEB's annual attrition rate has more than doubled from seven per cent in 2003 to 14.5 per cent in 2006. More than half of these departures were fully-trained, experienced employees drawn from the ranks of our professional engineers, inspectors, environmental specialists and market analysts.

In Calgary's current hot job market, many of these professions are in high demand and will remain so in the foreseeable future.

The NEB continues to address challenges associated with recruiting and retaining staff. In addition, new areas of energy development such as the construction of Canada's first liquefied natural gas import terminal in Atlantic Canada and the demand for geotechnical work in the North will require skilled staff to deliver NEB expertise and regulation in these areas.

KEY CORPORATE INITIATIVES

By late 2006, the NEB had implemented approximately half of the requirements associated with adopting a Quality Management System as a framework for:

- Effective, efficient execution of Board processes;
- Ensuring stakeholder needs are met;
- Enabling process consistency where required, and flexibility where possible; and
- · Encouraging continual improvement.

With the *ISO 9001:2000 Quality Management Systems – Requirement* as a guide, the Board uses both internal and external audits to track progress and ensure the Quality Management System is effective. The Board expects to complete implementation by April 2008.

The Records Renewal Project establishes the tools, training, techniques and practices that will meet the information management needs of the NEB and the Government of Canada. To date, nearly 200,000 documents, from e-mails to paper documents, are currently hosted by the Board's Records and Documents Information Management System. During the fall of 2006, the program underwent an extensive review, resulting in the decision to reframe the initiative and examine such issues as a revalidation of the program and project objectives.

NEB AS A SEPARATE EMPLOYER

The NEB has been a separate employer since December 1992. As a Public Service separate employer, the authority to carry out certain personnel management functions has been transferred from the Treasury Board to the Chairman of the NEB. With the transfer of authority comes the responsibility for creating and maintaining an NEB classification system, developing human resource management policies and practices, and collective bargaining.

Although a separate employer, the NEB continues to be bound by federal legislation. The Board is governed by the terms of the *Public Service Employment Act* (PSEA) in respect to promotion and recruitment. Employee–employer relations are subject to the *Public Service Labour Relations Act*. In addition, the NEB is subject to public service constraints and public service wage restraints. Financial matters are governed by the Financial Administration Act as administered by Treasury Board. Furthermore, the NEB is bound by the provisions and standards set out in the *Official Languages Act* and the *Employment Equity Act*.

For the most part, NEB employment practices are governed by legislation within the purview of the Public Service Commission while many of the compensation and benefit practices fall under the auspices of the Treasury Board.

EMPLOYEE OPINION SURVEY

The Employee Opinion Survey is part of a government-wide initiative to gather the views of employees on key work issues. The objective is to create a work environment that will help all employees provide better service to their clients and to Canadians. The latest survey was conducted in late 2005 and consisted of 116 questions covering a wide range of topics such as career and learning, health and safety, staffing, internal communication, harassment and discrimination.

In mid-2006 an Advisory Project Working Group was established to review the results and analyze the responses from the 2005 survey. While 84 per cent of employees said the NEB is a good place to work, a number of areas for improvement were identified. Once the results were examined, the working group made 25 recommendations related to workplace enhancements, communication and relationships.

FINANCIAL HIGHLIGHTS

Each year, the NEB sets out its plans and planned spending for the coming year in a document entitled *Estimates Part III – Report on Plans and Priorities* which is tabled in Parliament. At the end of the fiscal year, March 31, the NEB reports its results in a document known as the *Departmental Performance Report*. This document is also tabled in Parliament and forms part of the NEB's accountability to the public.

These documents may be accessed at the Treasury Board's website www.tbs-set.gc.ca

The financial information in these reports is prepared in accordance with Treasury Board of Canada accounting standards which are based on Canadian generally accepted accounting principles.

Approximately 90 per cent of the NEB's costs are recovered from the companies it regulates. All monies collected from cost recovery are paid into the government's Consolidated Revenue Fund. Cost recovery is based on a calendar year cycle and financial statements are prepared for the purposes of determining the costs to be recovered from NEB-regulated companies. The *National Energy Board Cost Recovery Regulations* set out which costs the NEB may recover and the manner in which money is recovered.

Regulated companies are grouped by size according to definitions set out in the regulations. Small and intermediate companies pay fixed levies. Large companies pay levies that vary according to the total amount of spending by the NEB, the amount of recoverable costs allocated to each of the three commodity groups (natural gas, crude oil and electricity) and the level of activity reported by each regulated company.

The financial statements prepared for cost recovery purposes are audited annually. These statements may be viewed online by visiting www.neb-one.gc.ca and clicking on the tab labeled *Publications*. Regulated companies who participate in the cost recovery initiative can discuss the NEB's activities and expenditures by attending meetings of the Cost Recovery Liaison Committee. This committee meets two to four times annually and serves as a forum in which the NEB provides accountability reports and industry representatives may voice questions, make comments and offer ideas on NEB operations.

In response to a request from the electricity industry, the NEB has undertaken an initiative to amend the *National Energy Board Cost Recovery Regulations*. Consultations with industry have been conducted and amendments to the regulations have been drafted. When this process is completed, the proposed regulations will be published for comment. The proposed amendments include a change to the cost recovery year from the calendar to the fiscal year.

In terms of financial results, the NEB's use of funding has remained within its authorized appropriation. As outlined in the Departmental Performance Report, the NEB has successfully addressed its goals and specifically identified priorities. Looking forward, the NEB faces challenges in financial management arising from an active, highly competitive economy which is triggering an increase in costs.



A WEALTH OF EXPERIENCE



CHAIRMAN, KENNETH VOLLMAN

A native of Saskatchewan, Mr. Vollman has a Master's degree in Mechanical Engineering from the University of Saskatchewan and is a member of the Association of Professional Engineers, Geologist and Geophysicists of Alberta.

Mr. Vollman has spent his career working in the energy sector gaining his practical experience with oil and gas production while working in the private sector. During his career at the NEB, Mr. Vollman gained experience in energy supply and demand, pipelines, energy regulatory issues and management. In 1998, he was designated as Chairman after serving as a Member and Vice-Chairman.

Over the past four decades, Mr. Vollman has authored and presented numerous papers at Canadian and international conferences.



VICE-CHAIRMAN GAÉTAN CARON

Originally from Québec City, Mr. Caron obtained his Bachelor of Rural Engineering degree from Laval University and his Master of Business Administration degree from the University of Ottawa.

Mr. Caron joined the NEB in 1979, where he has held several senior positions. Prior to his appointment as a Board Member in 2003, he held the position of Chief Operating Officer. He was designated Vice-Chairman in 2005.

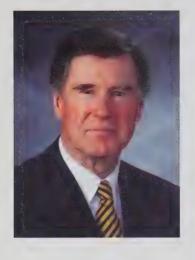
Mr. Caron is the Vice-Chair of the Canadian Association of Members of Public Utilities Tribunals (CAMPUT) and a member of the Association of Professional Executives of the Public Service of Canada, the Quebec Order of Engineers and the Board of Directors of the Calgary United Way.

MEMBERS

ROWLAND HARRISON, Q.C.

Originally from Australia, Mr. Harrison has a Master of Laws degree from the University of Alberta and is a member of the bars of Nova Scotia, Ontario and Alberta. He has gained extensive advisory, consulting and research experience in various aspects of energy regulation and policy during his career.

As a Professor of Law at various Canadian universities, Mr. Harrison taught Oil and Gas Law, Advanced Petroleum Law, Constitutional Law and Administrative Law. He has held senior management positions with a number of organizations including Canada Oil and Gas Lands Administration, the Canadian Institute of Resources Law, the Institute for Research on Public Policy and the Dalhousie Institute of Environmental Studies. Before his appointment to the Board, he was a partner in the Calgary office of Stikeman Elliott, a national and international Canadian law firm.



JOHN S. BULGER

Originally from Manitoba, Dr. Bulger has a Ph.D. in Physical Chemistry from York University in Toronto, as well as a Graduate Management Diploma from McGill University in Montreal. He has experience in procurement, operations, planning, regulatory affairs and providing advice on energy issues.

Prior to being appointed to the Board, he held the position of Senior Manager, Regulatory Affairs at Maritimes and Northeast Pipeline in Halifax, Nova Scotia. He also spent almost 20 years at Gaz Métropolitain in Montreal, Quebec in various senior management positions. He began his career at DuPont of Canada Ltd.

Dr. Bulger is a member of the Chemical Institute of Canada.



KENNETH BATEMAN

Mr. Bateman holds a Bachelor of Law degree from the University of Alberta and a Master in International Business Management degree from the American Graduate School of International Management. He is a member of the Alberta Law Society, the Canadian Bar Association and the General Counsel Roundtable.

Most recently, Mr. Bateman was vice-president of Legal Affairs at ENMAX Corporation. In this capacity, he was responsible for legal services, environmental affairs and compliance and information management. Mr. Bateman has also acted as interim Regulatory Department head where he reviewed transmission and distribution applications, refilings and implementation of Alberta Energy and Utilities Board (EUB) decisions.

Mr. Bateman has extensive experience acting as senior legal counsel for a variety of organizations including a corporate commercial practice firm, investment group and technology companies.



STRATER CROWFOOT

Mr. Crowfoot holds a Bachelor of Science degree and a Master of Business Administration degree from Brigham Young University.

Mr. Crowfoot has extensive experience working with First Nations peoples in Canada. He has served as Deputy Chairman and Chairman of the Indian Taxation Advisory Board (ITAB). Mr. Crowfoot has worked to support the development of its policies, procedures and regulations. In his role as Chairman of the ITAB, his work included advising federal ministers on general tax policy, developing relationships with rate payers and their associates and directing complaint resolution.

For ten years, Mr. Crowfoot served as Head Chief of the Siksika Nation. He has also served as executive director of Indian Oil and Gas Canada.



ROLAND GEORGE

Mr. George holds a Bachelor of Science degree in Mathematics and Computer Science from McGill University, a Master's degree in Economics from Carleton University and a Master of Business Administration degree from École des Hautes Études Commerciales in Montreal.

For the past 25 years, Mr. George has worked primarily in the private energy sector. Most recently, he was senior principal at Purvin & Gertz, an international energy consulting firm. There he led the North American natural gas practice. Mr. George has also held positions with the Canadian Energy Research Institute, Gaz Métropolitain, Téléglobe Canada and Canadian Pacific Limited.

Mr. George chairs the National Energy Board's Regulatory Policy Committee and is a member of CAMPUT's Regulatory Affairs Committee.





2006 ANNUAL REPORT



GEORGETTE HABIB

Ms. Habib holds a Bachelor's degree in Mathematics from the American University of Beirut and a Master's degree in Economics from the University of Alberta.

For the past 24 years, Ms. Habib has been with the EUB, most recently as Manager of the Economics Group. During her time with the EUB, Ms. Habib acted as a panel member at public hearings and provided expertise and advice to the Board on regulatory and policy issues.

Ms. Habib has also lectured intermediate-level courses in micro and macroeconomics at the University of Calgary.



SHEILA LEGGETT

Ms. Leggett has a Bachelor's degree in Biology from McGill University and a Master's degree in Biology from the University of Calgary. She has regulatory experience as well as a background in environmental issues.

Recently, Ms. Leggett was a Board Member with the Alberta Natural Resources Conservation Board (NRCB) which conducts hearings into natural resource development projects. She also served as Director of Operations for the NRCB. Prior to working with the NRCB, Ms. Leggett was a vice-president and senior consultant with an environmental consulting firm. She also has experience as a project biologist and advisor focusing on reclamation programs.

Ms. Leggett has published numerous papers and made presentations at conferences across Canada.

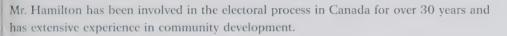


TEMPORARY MEMBERS

DAVID HAMILTON

Originally from Scotland, Mr. Hamilton has a Master's degree in Leadership and Training from the Royal Roads University, Victoria British Columbia. Mr. Hamilton has more than 30 years of experience working in Northwest Territories in the development of people and communities through both the parliamentary and democratic processes.

Mr. Hamilton was Deputy Minister and Clerk of the Legislative Assembly of the Northwest Territories for 20 years. He also held the appointment as Chief Electoral Officer for the Northwest Territories. Mr. Hamilton administered the first general election for Members to the Legislative Assembly in Canada's two new Territories, Nunavut and the Northwest Territories, following division of the NWT in 1999. Mr. Hamilton participated in the ratification votes for the Gwich'in Land Claim Agreement, the Sahtu Settlement Agreement and the Inuit Land Claim Settlement.





JIM DONIHEE

Mr. Donihee was appointed Chief Operating Officer of the Board on 17 November 2003. Reporting directly to the Chairman, he is responsible for all operational and support functions of the National Energy Board; accountable for the development, execution and delivery of results identified in the Board's Strategic Plan; accountable for business relationships with Canada's energy ministries and to foster strong relationships with all principal stakeholders of the NEB.

Mr. Donihee served in the Canadian Forces for over twenty-seven years as an operational pilot, where he gained leadership experience leading groups ranging in size from 30 to 3000 people in dynamic task and performance oriented organizations. He has extensive experience in process re-engineering and change management. Retiring as Colonel from the Canadian Forces, Mr. Donihee worked in the energy industry where he introduced Knowledge Management and led initiatives that fostered organizational effectiveness, including Knowledge Exchange, leadership development and performance management.

Mr. Donihee earned a Bachelors degree in Business Administration and Computer Science from the College Militaire Royal in St.-Jean, Quebec. He was awarded the Order of Military Merit by her Excellency the Governor General of Canada, The Right Honorable Adrienne Clarkson.

Mr. Donihee was appointed Temporary Member on May 19, 2005 for a period of two years.



2006 ANNUAL REPORT

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PARTNERS IN RESPONSIBLE DEVELOPMENT





National Energy Board



Office national de l'énergie

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Office national de l'énergie

Office of the Chair

Bureau du Président

14 March 2008

The Honourable Gary Lunn, P.C., M.P.
Minister of Natural Resources
580 Booth Street, 21st Floor
Ottawa, Ontario
K1A 0E4

Dear Minister:

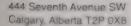
Annual Report 2007

I am pleased to submit the Annual Report of the National Energy Board for the year ending 31 December 2007, in accordance with the provisions of Section 133 of the *National Energy Board Act*, R.S.C. 1985, c. N-7.

Yours truly.

Gaetan Caron

Chair and CEO





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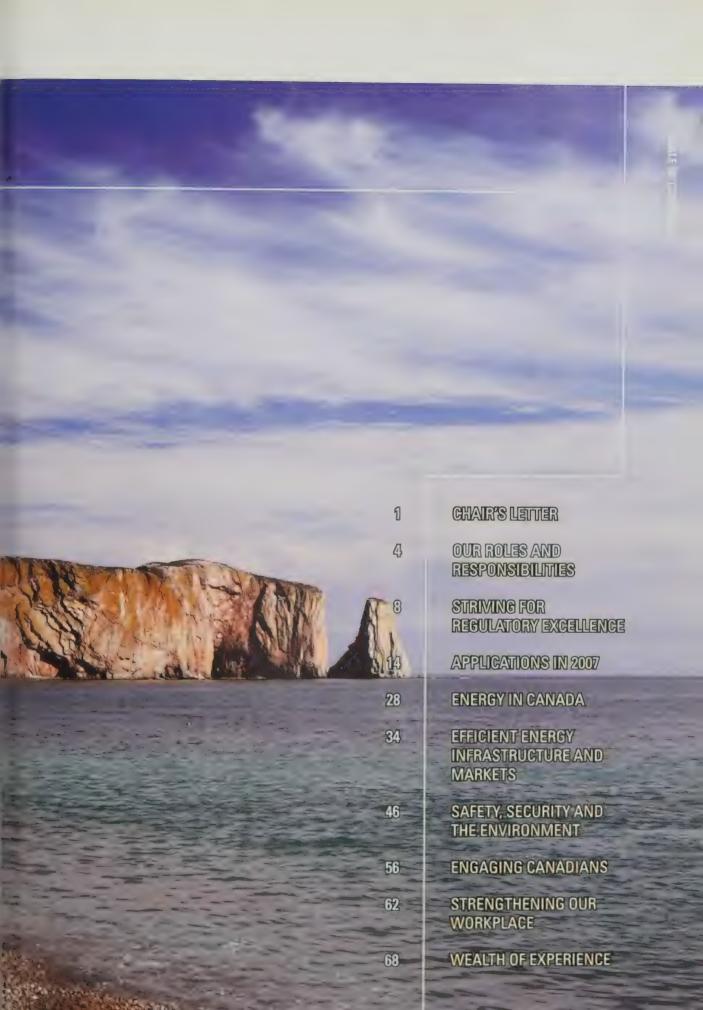
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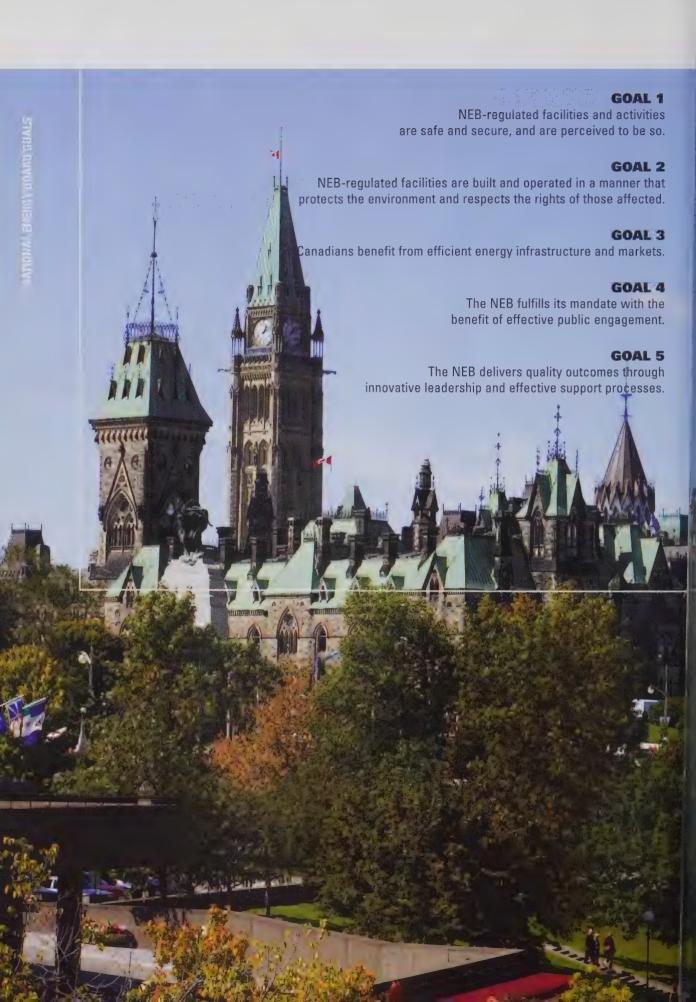
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VISION

The NEB is an active, effective and knowledgeable partner in the responsible development of Canada's energy sector for the benefit of Canadians.

PURPOSE

We promote safety and security, environmental protection and efficient energy infrastructure and markets in the Canadian public interest^[1] within the mandate set by Parliament in the regulation of pipelines, energy development and trade.

VALUES

At the NEB we strive for excellence in all that we do. Excellence at the NEB is driven by organizational and personal commitment to three key corporate values:

- Integrity: We are fair, transparent, and respectful.
- Regulatory Leadership: We are responsive, proactive and innovative.
- Accountability: We support and hold each other accountable to deliver timely, high quality results in the Canadian public interest.

STRATEGIES

- Improve regulatory processes
- Enhance NEB capacity and culture
- Inform Canadians on energy markets

The public interest is inclusive of all Canadians and refers to a Juliance of economic, environmental and social interests that the public possible as society's values and preferences evolve over time. The regulator, the Board must estimate the overall public good in inchast, create and its potential negative aspects, weigh its virians impacts, and make a decision.

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CHAIR'S LETTER



ooking back over 2007, I saw an organization running at capacity to serve Canadians who wanted or needed to be part of the NEB's work and I saw a commitment on the part of our Board and staff members to continually improve the way we conduct the business of the Board.

Throughout the year, our workload was very high and the issues and matters we needed to resolve grew in complexity. The number of people interested in energy industry developments and the NEB's role of protecting the public interest continued to grow. Canadians are better informed and more interested in the work of government and how energy-related decisions affect their quality of life. In a year where the price of crude oil hit record highs, Canadians are also keenly interested in learning more about how energy markets work.

We are applying our constant focus on fairness and transparency to the new dimensions and issues brought to our attention by a broad range of Canadians. For example, in October 2007, we established the Land Matters Consultation Initiative to provide a forum for interested parties and the Board to engage in dialogue and develop options that will help support strong working relationships among landowners, energy companies and other parties.

The NEB strives to improve regulatory processes and deliver timely, high quality decisions in the Canadian interest. In December, we launched a pilot project designed to test a new application system that will deliver regulatory efficiency while still promoting safety, security and environmental protection. The proposed process will allow companies who meet certain criteria to proceed with their application without the requirement for a detailed process. This initiative supports the Board's risk-based life cycle approach in that application filing requirements will be tailored so that they reflect the risk, complexity and extent of public interest in a project.

The risk-based life cycle approach relates to a company's performance as well as the scope of regulatory oversight required throughout the life cycle of a project. It supports the NEB's goal oriented direction and allows the Board to focus its resources where they are most valued.

In the spirit of preparedness, we work closely with our regulatory partners to coordinate our activities so we can avoid duplication and unnecessary regulatory burden. The new Major Projects Management Office was created by the federal government to streamline the review of large natural resource projects while maintaining or enhancing Canada's regulatory standards. We fully support and will continue to actively participate in this initiative.

As energy-related issues play an increasingly important role in their lives and economy, more and more Canadians are turning to the NEB for objective, accurate and timely information about Canadia's energy

sector. Canada's Energy Future, released in November 2007, is a comprehensive, long-term study that examines our energy system from a variety of perspectives, including supply and demand, pricing, economics and the environment. In developing the study, our project team consulted with experts across Canada, incorporated their advice and summarized their views in the report. This study, along with our seasonal energy outlooks, energy market assessments, forecasts, energy overviews and energy pricing commentaries, will inform Canadians as they engage in the discussions and debates that will inevitably occur about Canada's energy future and the quality of life in Canada.

Throughout 2007, I was amazed by the commitment of our people to continually improve the way we do our work. The concept of rapprochement – the act of coming together frequently, talking regularly and working toward common goals – captures the spirit of the workplace I envision. I believe that a vital part of my role as Chair is to foster a work environment where people share their ideas, where they learn and develop their careers, and where they manage the workload so that they experience a healthy work/life balance.

In closing I would like to salute our staff and my fellow Board Members for their commitment and dedication to implementing our values: integrity, regulatory leadership and accountability. I would also like to thank Ken Vollman, our former Chairman, who stepped down in June after 33 years with the Board. Mr. Vollman joined the NEB as a young engineer in 1973 and worked his way through the ranks. Among his many achievements during his tenure, he guided the Board towards a goal oriented regulation philosophy and promoted the culture of excellence that exists within the organization today.

At the NEB, we share a commitment to continual improvement. As I look ahead, I say with confidence, we will be ready to seize the opportunities that come our way.

Gaétan Caron

Gaétan Caron Chair and CEO, National Energy Board









A LEADER IN ENERGY REGULATION

he National Energy Board (NEB or the Board) is an independent federal agency that promotes safety and security, environmental protection and economic efficiency in the Canadian public interest within the mandate set by Parliament for the regulation of pipelines, energy development and trade. Established in 1959, the Board is funded 90 per cent by the energy industry it regulates and 10 per cent by government. The Board reports to Parliament through the Minister of Natural Resources.

The NEB regulates approximately 45 000 kilometres of pipelines across Canada. In 2007, these pipelines shipped over \$1042 billion worth of crude oil, petroleum products, natural gas liquids and natural gas at an estimated transportation cost of \$4.4 billion.

The main functions of the NEB are established in the *National Energy Board Act* (NEB Act) and include regulating:

- the construction and operation of pipelines that cross international or provincial borders, as well as pipeline tolls and tariffs;
- the construction and operation of international power lines and designated inter-provincial power lines;
- natural gas imports and exports, crude oil, natural gas liquids, electricity exports; and,
- oil and natural gas activities on frontier lands and offshore areas not covered by federal/provincial management agreements.

Additionally, the Board has regulatory responsibilities under the *Canada Oil and Gas Operations Act* (COGO Act) and under certain provisions of the *Canada Petroleum Resources Act* (CPR Act) for crude oil and natural gas exploration and production on frontier lands and certain areas off Canada's east, west and arctic coasts.

The NEB has environmental responsibilities under the *Canadian Environmental Assessment Act* (CEA Act) and the *Mackenzie Valley Resource Management Act*. In addition, certain Board inspectors are appointed Health and Safety Officers by the Minister of Labour to administer Part II of the *Canada Labour Code* as it applies to facilities and activities regulated by the Board.

The Board monitors aspects of energy supply, demand, production, development and trade that fall within the jurisdiction of the federal government. The Board also provides energy information through public reports and presentations, which are available on our website. The NEB's mandate includes providing expert technical advice to the Canada Newfoundland and Labrador Offshore Petroleum Board, the Canada Nova Scotia Offshore Petroleum Board, Natural Resources Canada, and Indian and Northern Affairs Canada.

The NEB may, on its own initiative, hold inquiries, study specific energy matters and prepare reports for Parliament, the federal government and the general public. On request, the NEB provides advice to the Minister of Natural Resources Canada and other government ministers, departments and agencies.

The NEB is a court of record and has the powers of a superior court. The NEB Act provides for up to nine permanent Board Members supported by a staff of approximately 300 that includes, among others, financial

and market analysts, environmental and lands specialists, socio-economists, engineers, geologists and lawyers. Public hearings are typically conducted by three Board Members, who constitute a quorum, with one acting as the Presiding Member. The Board's regulatory decisions and the reasons for them are issued as public documents.

More information on the background and operations of the NEB may be found at the Board's website, www.neb-one.gc.ca.

Figure 1: Frontier Administrative Areas









n carrying out its mandate, the NEB relies on a regulatory strategy that is based on goal-oriented regulations, clear, predictable regulatory processes, quality management systems and cooperation with other government agencies and departments.

REGULATORY ACTIVITY

In 2007, the NEB considered applications for new pipeline facilities, tolls and tariffs filings, international power lines, activities on frontier lands, and requests for changes to short-term export and import orders. These activities are summarized below:

Certificates, Orders, Permits and Applications approved in 2007

■ 483 Certificates, Orders, Permits and Letter approvals

Construction and operation of pipelines and power lines under Parts III and III.1 of the NEB Act

■ 53 Orders and Permits issued

Pipeline tolls and tariffs under Part IV of the NEB Act

■ 13 Orders issued

Exports and imports of natural gas, crude oil, natural gas liquids and electricity under Part VI of the NEB Act

■ 378 Orders and Permits issued

Exploration and production activity in frontier areas under the COGO Act

47 Applications approved

Activity in frontier areas under the CPR Act

3 Significant Discovery Declarations

Proceedings

- 12 Public hearings
- 39 Public hearing days

Compliance Monitoring

- 25 Inspections undertaken during construction
- 24 Inspections of operating pipelines and facilities
- 3 Incidents resulting in an on-site response by NEB personnel
- 19 Workplace inspections under the Canada Labour Code
- 4 Financial audits
- 4 Management system audits

Landowner Complaint Resolution Program

■ 18 Landowner files considered

DEVELOPING A REGULATION: A SYSTEM OF CHECKS AND BALANCES

Many individuals, organizations and government departments contribute to the regulation-making process, including the sponsoring department or agency, the Treasury Board and the Department of Justice.

Effective regulation is based on clear and concise direction that provides the flexibility to adapt to changing conditions and new technologies. Because regulations potentially affect people across Canada, the Board carefully considers the issue at hand, consults affected stakeholders, and follows the process below to draft and submit proposed regulations.

- Evaluate the need. One of the first steps in developing a regulation is to determine whether or not it is required. The need is assessed through consultation with NEB experts and other relevant government departments. When appropriate, the Board will also involve industry and the public in defining the problem and identifying a solution at this early stage of the process.
- 2. Develop the regulation. A multidisciplinary team from the NEB works with internal legal advisors and colleagues who have expertise related to the proposed regulation. Although some regulations are straightforward, others are complex and require detailed analysis as well as consultation with numerous experts, stakeholders and government departments. Depending on the complexity of the issues, the parties impacted and the number of authorities involved, it can take a substantive amount of time to develop an effective regulation.
- 3. Legal examination and drafting by the Justice Department and policy review by the Privy Council Office. The legal examination includes a linguistic review of both the English and French versions of the regulation and a review by specialists to ensure that Canada's two legal systems, common law and civil law, are respected.

- 4. Departmental and, in some circumstances, Ministerial approval for pre-publication.
- Pre-publication review by Treasury Board and the Privy Council Office. The Treasury Board is responsible for monitoring, coordinating and advising on regulatory matters, and ensuring their consistency with economic, social and federalprovincial policies.
- 6. Pre-publication in the Canada Gazette, Part I.
 The Canada Gazette is the official publication of the Government of Canada. Part I contains all formal public notices, official appointments, miscellaneous notices and proposed regulations from the government that are required to be published by a statute or regulation. This important step gives interested stakeholders the opportunity to see how the final draft proposal compares to previous drafts and contributes to transparency in the regulatory process by allowing for public input and comment. A standard period of 30 days is allowed for the public to express their views.

Public comment is addressed and the proposed regulation is revised, if necessary. Even if the proposed regulation is not changed, a summary of public comments and how they were handled is prepared.

- 7. Final review of the revised regulation by the Department of Justice and the Treasury Board.
- 8. Approving, registering and publishing the regulation in the *Canada Gazette*, Part II, which contains regulations and certain classes of other statutory instruments. After this step, the regulation becomes law.
- Review by the Standing Joint Committee for the Scrutiny of Regulations based on 13 criteria related to matters of legality and the procedural aspects of regulations. The committee members can be drawn from the House of Commons and the Senate.







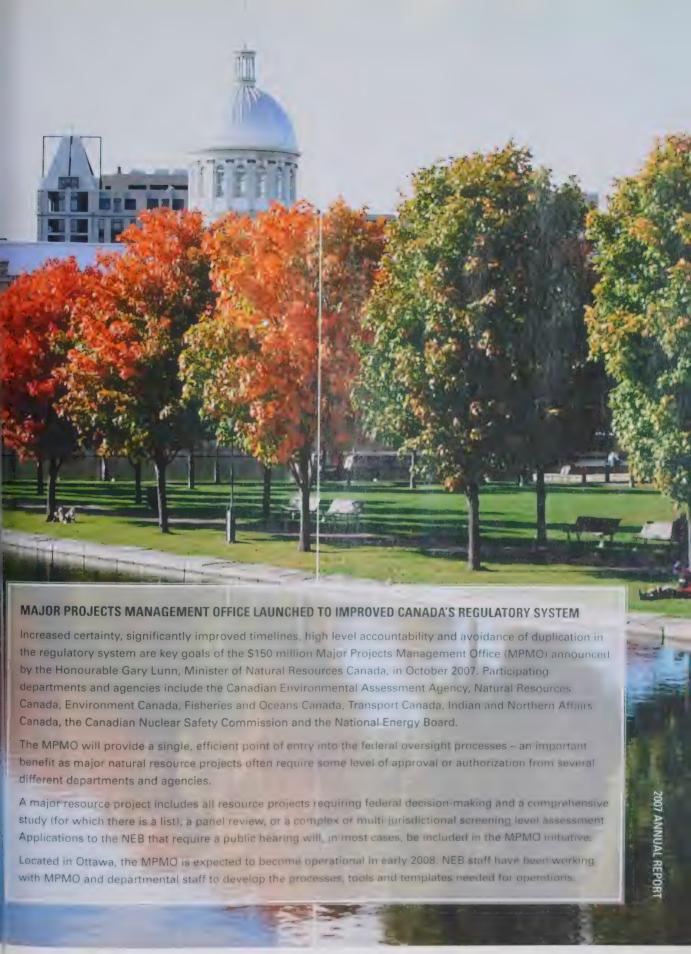
In 2007, the Board worked with the Department of Justice on several new or changing regulations, including:

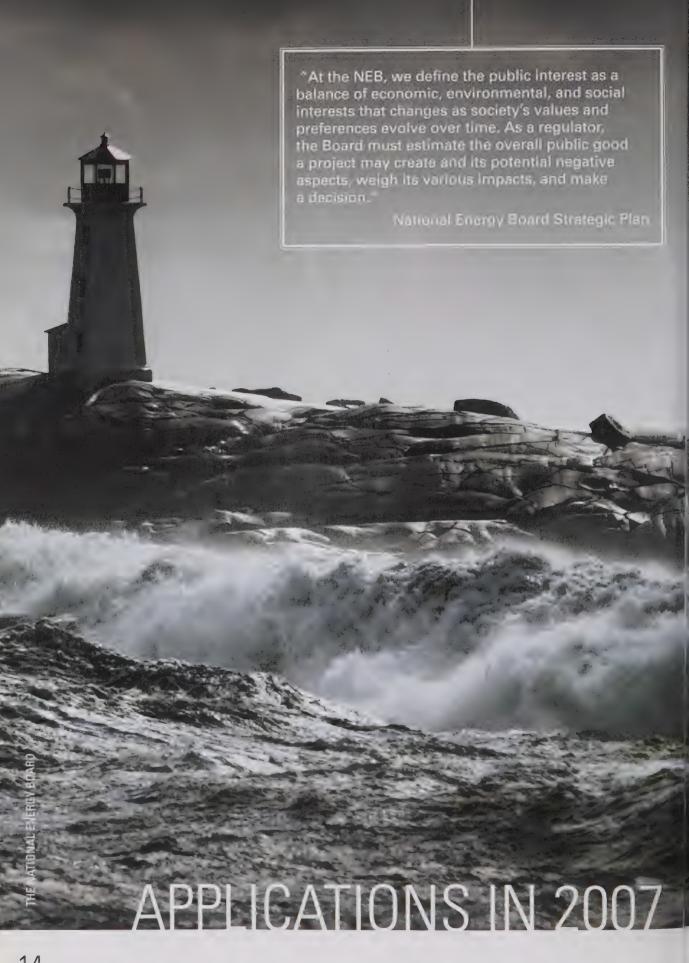
- preparing the proposed Damage Prevention Regulations;
- Production Regulations which amalgamates the existing Canada Oil and Gas Drilling and Production Regulations which amalgamates the existing Canada Oil and Gas Drilling Regulations and the Canada Oil and Gas Production and Conservation Regulations. These regulations are being developed in cooperation with Natural Resources Canada, Indian and Northern Affairs Canada, the Canada-Newfoundland and Labrador Offshore Petroleum Board, the Canada-Nova Scotia Offshore Petroleum Board, the Nova Scotia Department of Energy and the Newfoundland and Labrador Department of Natural Resources. The objective is to ensure common regulatory approaches for activities in offshore regions, the Northwest Territories and Nunavut.
- publishing draft *Decommissioning Regulations* in the *Canada Gazette*, Part I. These amendments to the *Onshore Pipeline Regulations*, 1999 and the *Processing Plant Regulations* are proposed to correct a regulatory gap identified by the National Energy Board. There is currently no requirement under the *Onshore Pipeline Regulations* that applies to a company planning to permanently remove a pipeline or part of one from operation, when the removal does not result in a discontinuance of service.

INDUSTRY STANDARDS

The NEB, in partnership with industry, government and stakeholder groups, participated in several initiatives that focused on developing consensus-based standards, best practices and common approaches to safety, security and environmental issues. NEB staff members belong to and chair several technical committees responsible for developing and updating pipeline standards through the Canadian Standards Association. The NEB is also a member of the Canadian Pipeline Environment Committee and the Canadian Association of Members of Public Utility Tribunals, which is currently headed by the Board's chair, Gaétan Caron.









he National Energy Board continued to work collaboratively with industry, government and other agencies to streamline regulatory processes, reduce or eliminate duplication of effort and expedite applications where appropriate. In the midst of ongoing change, limited resources and the increasing number and complexity of energy infrastructure requirements, the Board remained committed to ensuring that responsible development occurs in the public interest.

Proactive, clear communication between a project proponent and the public can greatly improve the application process. Our filing manual for applications identifies the information a company must file when they submit an application. A key component of this manual is public consultation.

It is important for a project's proponents to consult publicly about its application before it is filed. We encourage prospective applicants and intervenors to meet with NEB staff to make sure our filing manual and our processes are well understood. With respect to public consultation, the Board requires the following information within an application:

- principles and goals of the consultation program;
- design details of the consultation program; and,
- the outcome of the consultation program.

Depending on the nature of the application and the level of public interest, the Board may deal with an application by way of an oral or written hearing, or through a non-hearing process. If an application is approved and deemed to be in the Canadian public interest, the Board will authorize the project through an order, which may include conditions the applicant must fulfill during project development. The Board may then use a variety of post-decision tools, such as inspections and audits, to verify compliance with applicable regulations, company commitments, and imposed conditions.

In 2007, the Board received 152³ applications from regulated companies, including 90 applications under the COGO Act related to exploration and production in frontier areas.

APPLICATION HIGHLIGHTS - PIPELINE APPLICATIONS

The NEB strives to be an active, effective and knowledgeable partner in the responsible development of Canada's energy sector for the benefit of Canadians. Industry also has a key role to play in this partnership, notably, to submit projects for review that have commercial substance.

That includes, for a pipeline project:

- evidence of supply and market;
- evidence that there will be committed shippers:
- evidence of economic feasibility; and,

the willingness to squarely address the public interest issues that come hand-in-hand with the proposed development of natural resources, notably the environmental and socio-economic dimensions.

Mackenzie Gas Project – GH-1-2004

In October 2004, the NEB received five applications from Imperial Oil Resources Ventures Limited, Mackenzie Valley Aboriginal Pipeline Limited Partnership, Imperial Oil Resources Limited, ConocoPhillips Canada (North) Limited, ExxonMobil Canada Properties and Shell Canada Limited for the construction and operation of the Mackenzie Gas Project (MGP), a \$16.2 billion project to develop and transport natural gas and natural gas liquids from the Mackenzie Delta to market. The NEB issued Hearing Order GH-1-2004 with respect to the MGP applications on 24 November 2004.

Throughout 2005 the NEB held information and pre-hearing planning sessions in many communities near the proposed pipeline route to explain and seek input on its hearing process. During 2006, the Board carried out the scheduled evidentiary portion of its public hearing through a total of 47 hearing days spent in 15 communities in the Northwest Territories and northern Alberta.

On 5 February 2007, the NEB issued a list of proposed conditions for comment by the participants in its hearing. On 10 and 11 October 2007, the NEB held an oral hearing session in Yellowknife to examine updated evidence filed in the GH-1-2004 proceeding.

The Board's hearing process is coordinated with the Socio-Economic and Environmental Impact Review of the Mackenzie Gas Project by the Joint Review Panel (JRP). NEB Board Member Rowland Harrison

was appointed as a member of the JRP in 2004. Following the release of the JRP Report, expected in mid-2008, and a report to the Board by Mr. Harrison, the Board will complete its hearing process and issue its Reasons for Decision.

Throughout 2007, the NEB continued to partner with the Northern Gas Project Secretariat (NGPS), which has offices in Inuvik, Norman Wells, Fort Simpson and Yellowknife, and provides logistical, technical and administrative support to the NEB, JRP, Mackenzie Valley Land and Water Board, and Northwest Territories Water Board in their public hearings for the MGP. The NGPS provides the forum by which agencies responsible for the environmental and regulatory assessment of the Mackenzie Gas Project, including the NEB, can coordinate their activities while respecting the need for their review processes to be conducted independently.

TransCanada PipeLines and Keystone Pipeline GP Transfer Application – MH-1-2006

On 5 June 2006, TransCanada PipeLines Limited (TransCanada) and TransCanada Keystone Pipeline GP Ltd. (Keystone) applied to the NEB to transfer certain pipeline facilities that were part of the TransCanada Mainline natural gas transmission system from TransCanada to Keystone. Keystone stated that, if the transfer were to be approved, it planned to convert the transferred natural gas facilities to crude oil service for use in its proposed Keystone crude oil pipeline project. It asked the Board to determine that converting the facilities from gas to oil service would be in the public interest provided the Board also finds that the Keystone Project is required by the present and future public convenience and necessity.





Following a public hearing on the application in October and November 2006, the Board approved the transfer in its Reasons for Decision released on 9 February 2007. In its decision, the Board determined that the appropriate test to examine this application was the public interest, as opposed to the "no harm to gas shippers test", proposed by some intervenors. The Board further determined the application to be in the public interest, recognizing that the facilities would not be transferred until and unless Keystone receives additional approval from the NEB to construct and operate the Canadian portion of the proposed Keystone Pipeline.

The Board also approved TransCanada's request to reduce its Canadian Mainline rate base by the net book value (NBV) of the facilities and Keystone's request to include the NBV in Keystone Pipeline's accounts upon the transfer, and to continue including it in its accounts if the Keystone Pipeline is placed in oil transmission service.

Keystone Project - OH-1-2007

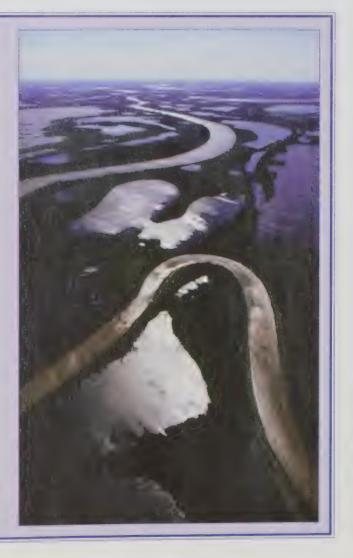
After the public hearing for the Keystone facilities transfer application and before the Board released its decision, Keystone submitted a facilities application for the Canadian portion of its Keystone project, including converting the natural gas facilities to crude oil service. The Keystone pipeline project would transport western Canadian crude oil to markets in the Chicago area. The Canadian portion of the Keystone project would consist of a 1 235-kilometre pipeline from Hardisty, Alberta to a location near Haskett, Manitoba, on the U.S. border. The estimated cost of the project is \$664 million and it would have a nominal design capacity of 69 200 cubic metres (435 000 barrels) per day. In June 2007, the Board held a public hearing on this application in Calgary and Regina. On 20 September 2007, the Board released its decision saving the Keystone project was in the public interest.

MACKENZIE GAS PROJECT: NORTHERN REFLECTIONS

With an estimated cost of \$16.2 billion, the Mackenzie Gas Project is one of the most extensive and expensive projects to be heard by the Board. The Mackenzie Gas Project is, in reality, five separate projects from five different partner companies for two pipelines along the Mackenzie Valley and the development of three natural gas fields in the Mackenzie Delta.

Before the hearing started, NEB staff members visited numerous communities with their Joint Review Panel and Northern Gas Project Secretariat colleagues to share information on participating in the upcoming hearings. A special pre-hearing planning conference in Inuvik, Yellowknife, Fort Good Hope and Fort Simpson helped the NEB to determine which communities to visit and what topics to discuss in each location.

Former NEB Chair Ken Vollman, one of three Board members appointed to the Mackenzie Gas Project, opened the hearing in Inuvik in January 2006, calling the undertaking historic. His colleagues on the Panel are NEB Chair Gaétan Caron and David Hamilton, a longtime Northwest Territories resident appointed as a Temporary NEB Member for this hearing. In recognition of the scale and significance of the hearings, the NEB's hearing opened in Inuvik with performances by local Inuvialuit and Gwich'in drummers and dancers.



During the course of the public hearing, the Board decided to hold a one day technical conference to obtain further information on engineering matters. At the conference, the Board and its staff questioned Keystone authorities primarily on engineering construction, change of service from gas to oil, pipeline operations and integrity management. The result was an improved understanding of the complex engineering matters associated with the application.

On 23 November 2007 Keystone applied to expand the capacity of the Canadian portion of the pipeline to 94 000 cubic metres (591 000 barrels) per day. The Board has received comments from interested parties and is considering the application.

Brunswick Pipeline Project - GH-1-2006

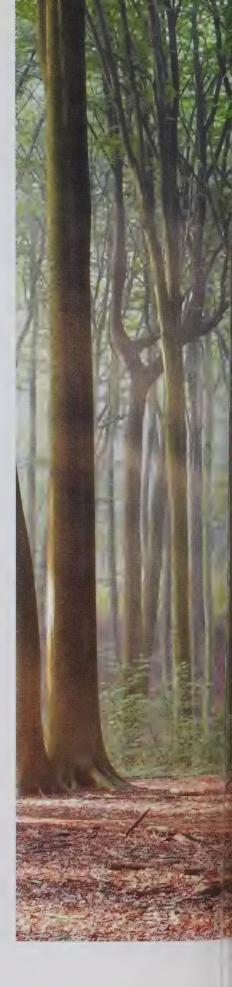
On 23 May 2006, Emera Brunswick Pipeline Company Ltd. (Emera) applied to the NEB for approval of the proposed Brunswick Pipeline. The Brunswick Pipeline would run 145 kilometres from the CanaportTM Liquefied Natural Gas (LNG) Terminal at Mispec Point, New Brunswick to a point on the U.S. border near St. Stephen, New Brunswick. Emera's application attracted a large public response with more than 70 parties registered as intervenors in the hearing, over 180 letters of comment received by the Board, and oral statements made by 19 people during the oral portion of the hearing.

Pursuant to section 43 of the *Canadian Environmental Assessment Act*, the NEB was permitted to use its own hearing process as a substitution for an environmental assessment by a review panel. The NEB's 11 April 2007 environmental assessment report found that the project is not likely to result in significant adverse environmental effects provided Emera meets all of its environmental commitments, and all of the NEB's recommendations are implemented. An evaluation of the pilot substitute process is currently being conducted by the Canadian Environmental Assessment Agency with a final report expected in 2008.

On 31 May 2007, the Board issued a decision approving the Brunswick Pipeline Project on the grounds that the pipeline is necessary to meet present and future energy needs of Canadians. The Board recognized that many of the benefits of the pipeline are national or regional in scope and that the majority of the burdens will be shouldered by the local community, but the Board concluded that the burdens to the local community of Saint John will be significantly reduced through the conditions and the guidance provided to Emera in the NEB's Reasons for Decision.

Brunswick Pipeline Project Detailed Route Application – MH-3-2007

On 12 July 2007, Emera filed its proposed detailed route for the Brunswick Pipeline Project with the Board. After the maps and related information for the detailed route application were finalized, Emera served notice of its application on potentially affected





landowners and published a notice of its application in local newspapers. Those whose lands might be acquired for the pipeline and people who believed their lands might be adversely affected by the project had 30 days to submit to the Board written statements opposing the route and stating the reasons for their opposition.

The Board received 21 written statements of opposition and determined that 11 of these statements, coming from seven different landowners, met the requirements in the NEB Act for public hearings. These hearings will be held in Saint John, New Brunswick beginning on 28 January 2008. Each landowner will have the opportunity to be heard by the Board on their statement of opposition as it relates to the best possible route of the pipeline and the most appropriate methods and timing of building the pipeline as it relates to their land. Meanwhile, the Board is approving the routing maps for those segments of the proposed detailed route where landowners have been duly notified and the detailed route is not under dispute.

The proposed detailed route includes three short segments which extend slightly outside the general corridor approved as part of the Brunswick Pipeline Project. These three routing adjustments were made in response to landowner requests to avoid potential land use conflicts and to reduce the number of affected landowners. The Board evaluated these three segments pursuant to section 21 of the NEB Act as a proposed variance to its decision approving the Brunswick Pipeline Project. The Board conducted an environmental assessment of the three proposed route variations based on the CEA Act. The Board provided all parties to the original hearing as well as the general public with the opportunity to comment on the proposed route variations. The people who commented on these variations were also given the opportunity to comment

on the environmental screening report prepared by the Board. After evaluating the evidence, the Board recommended that the Governor in Council issue an amending order approving the variance for the three sections.

Deep Panuke Offshore Gas Development Project – GH-2-2006

On 9 November 2006, EnCana applied to the NEB to build and operate a 176-kilometre underwater pipeline as part of the Deep Panuke Offshore Gas Development Project. The pipeline would extend from the Deep Panuke production facilities, about 173 kilometres off the east coast of Nova Scotia, to an interconnection point on the existing Maritimes & Northeast Pipeline near Goldboro, Nova Scotia. The pipeline would be designed to transport up to 8.5 million cubic metres (300 million cubic feet) per day of sweet natural gas.

At the same time it applied to the NEB, EnCana also applied to the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) for the Deep Panuke Project. In an effort to avoid duplication, the NEB and CNSOPB coordinated their review processes. Hearings before an NEB member and a CNSOPB-appointed commissioner were held in Halifax on March 5 to 9, 2007. The NEB approved the application, with conditions, and released its Reasons for Decision on 13 September 2007. EnCana announced its intention to proceed with Deep Panuke on 25 October 2007.

Alida to Cromer Capacity Expansion – OH-2-2007

The Enbridge Pipelines (Westspur) Inc. Alida to Cromer Capacity Enhancement (ACCE) Project involves the construction and operation of a 60-kilometre natural gas liquids (NGL) pipeline from the Enbridge terminal in Alida, Saskatchewan to the Enbridge terminal in





STREAMLINING THE APPLICATION PROCESS

In August 2007, the NEB launched a pilot project designed to test a new online application system that will enhance regulatory efficiency while promoting safety, security and environmental protection in the public interest. The pilot process applies to pipelines that fall under section 58 of the *National Energy Board Act*, which deals with pipelines that are less than 40 kilometres in length.

The new application system, scheduled to be implemented during the first half of 2008, supports the Board's risk-based life cycle approach in that companies will use the Board's criteria to evaluate the risks of their proposed projects, confirm the level of risk for each criterion and provide additional information to the Board only if there is more than a low level of risk for a particular criterion. As the complexity of the project increases, so too will the amount of information required. Issues of concern or issues that are higher risk in nature will receive extra oversight by NEB technical specialists with expertise in the specific topics potentially affected by the proposed project. Issues that are low risk in nature will still be assessed, but the amount of information required for the assessment will be streamlined.

Cromer, Manitoba. Although the new NGL pipeline will not increase NGL throughputs beyond current levels, it will free up capacity on an existing pipeline and allow Enbridge (Westspur) to respond to a forecast of growing crude oil production from fields in south and eastern Saskatchewan by increasing the crude oil delivery capacity between Alida and Cromer by about 20 per cent, from 25 000 cubic metres (157 300 barrels) per day to 29 900 cubic metres (188 130 barrels) per day.

Upon receipt of the application for the ACCE project in January 2007, the Board made a preliminary assessment of the risks associated with the project and determined the processing timeline accordingly. Factors considered included the lack of technical complexity, the limited environmental impact and the lack of public involvement. The Board approved the application with conditions in June 2007, a timeline about four months shorter than usual.

Enbridge Southern Lights Project – OH-3-2007

On 9 March 2007, Enbridge Southern Lights GP on behalf of Enbridge Southern Lights LP and Enbridge Pipelines Inc. applied to the NEB for approval of the Southern Lights Project. This project consists of two sub-projects, the diluent pipeline project and the capacity replacement project.

The diluent pipeline project involves transferring the Canadian portion of Line 13 from Enbridge Pipelines Inc. to Enbridge Southern Lights LP and removing the line from southbound crude oil service. Line 13 would be reversed in order to transport diluent from the Canada US border near Gretna. Manitoba to Edmonton. Alberta. Diluents are light petroleum liquids used to

dilute bitumen and heavy oil so they can flow through pipelines. The reversed line would be the first diluent pipeline regulated by the Board.

The capacity replacement project would offset reduced southbound crude oil capacity on the Enbridge Pipelines Inc. Mainline system resulting from the reversal of Line 13. The capacity replacement project involves building a new 288-kilometre light sour crude oil pipeline from Cromer, Manitoba to the Canada/US border near Gretna and modifications to Enbridge Pipelines Inc.'s Line 2.

The Board scheduled oral hearings in Calgary, Regina and Brandon, Manitoba to accommodate the participation of aboriginal and landowner groups. However, due to consultation and negotiations efforts between the applicants and various stakeholders, some of the parties were able to reach an agreement and consequently withdrew from further participation in the hearing process. As a result, the hearing scheduled for Brandon was cancelled. The oral hearing took place on 13 and 14 August in Calgary, 20 and 21 August in Regina and on 29 and 31 October in Calgary. A decision is pending.

Enbridge Alberta Clipper - OH-4-2007

The Enbridge Mainline system is the primary means of pipeline transportation for Western Canada Sedimentary Basin (WCSB) crude oil to reach eastern Canadian markets. With the development in the Western Canada oil sands, total WCSB supply is expected to grow, necessitating additional pipeline capacity out of the WCSB.

On 30 May 2007, Enbridge Pipelines Inc. (Enbridge) submitted an application for the construction and operation of the Alberta Clipper Expansion Project and for the approval of a proposed tolling methodology.

The Canadian portion of the proposed Alberta Clipper Project would entail approximately 1 078 kilometres of new crude oil pipeline between Hardisty, Alberta and the Canada-U.S. border near Gretna, Manitoba. With an initial capacity of 71 500 cubic metres (450 000 barrels) per day, the pipeline would expand Enbridge's existing mainline system and provide Enbridge with increased flexibility to meet demands from Canadian shippers for more pipeline capacity. It would also accommodate different types of crude oil. The estimated cost of the Canadian portion of the project is \$2 billion, with construction to be completed by the end of December 2009.

To facilitate the participation of affected parties located outside the Calgary area, including landowners and Aboriginal peoples, the Board scheduled the oral hearing to begin 5 November 2007 in Brandon, Manitoba. Similarly, the Board also announced hearing dates for subsequent weeks in Saskatoon, Regina, and Calgary. However, due to consultation and negotiations between Enbridge and various stakeholders, agreements were reached that resulted in a number of parties withdrawing from further participation in the Board's hearing process. As a result, the oral portion of the Alberta Clipper hearing lasted five days and was held only in Calgary and Regina. A decision is pending.

Enbridge Line 4 Extension Project – OH-5-2007

The Enbridge Mainline system from Edmonton to Hardisty, Alberta currently consists of four pipelines; while downstream of Hardisty the Mainline system comprises five pipelines. The existing Line 4 pipeline starts at Hardisty and carries product to the southeast.

Enbridge applied to the NEB on 28 June 2007 to construct and operate its Line 4 Extension project. This project, if approved, would extend Line 4 by about 180 kilometres upstream so that it starts at Enbridge's Edmonton terminal, thereby increasing the Enbridge Mainline system to five pipelines upstream of Hardisty. The project would consist of reactivating 42.5 kilometres of currently deactivated pipeline, and building 137.5 kilometres of new pipeline between Edmonton and Hardisty. When completed, the new pipeline would

have an average capacity of 140 000 cubic metres (880 600 barrels) per day of crude oil. An oral public hearing is planned for 2008.

SemCAMS Redwillow Pipeline – GH-2-2008

On 7 December 2007, SemCAMS Redwillow ULC (SemCAMS) applied to the NEB to construct and operate the Redwillow Pipeline. The proposed Redwillow Pipeline would transport sour natural gas across 150 kilometres of Crown land in British Columbia and Alberta. An oral public hearing is planned for 2008.

TOLL AND TARIFF APPLICATIONS

Tolls are the prices charged by a pipeline company for transportation and other services on its system and can vary from year to year as costs and circumstances change. Tariffs describe the terms and conditions under which the services of a pipeline are offered or provided, including the tolls, rules, regulations and practices relating to specific services. Tolls and tariffs for major pipelines are typically decided either through a public hearing process or through negotiations between pipeline companies and shippers. All negotiated settlements must be approved by the NEB.

Gros Cacouna Receipt Point Hearing

On 17 July 2007, the NEB approved an application from TransCanada PipeLines Limited (TransCanada) for the receipt of natural gas from a proposed liquefied natural gas regasification terminal at Gros Cacouna, Québec, and for the tolling methodology for shipping from this new receipt point.

The NEB approved the applied-for toll methodology which reaffirms the existing rolled-in tolling methodology on TransCanada's Integrated System.

This decision means that all eventual costs of extending the TransCanada Integrated system to Gros Cacouna would be rolled into a single, existing cost pool.

Alliance British Columbia Expansion – GHW-1-2007

On 28 February 2007, Alliance Pipeline Ltd. (Alliance) applied to construct a new 5.7-megawatt (7 700 horsepower) compressor station, and for approval of certain tariff amendments. The proposed new compressor station would provide additional receipt capability for the Taylor-Aitken Creek (TAC)





zone in northeastern British Columbia. The requested amendments to Alliance's Transportation Tariff included a new receipt-only service (ROS) for the incremental capacity from the TAC zone and a ROS secondary receipt point toll to help facilitate the continued high use of the available ROS capacity.

The Board established a written procedure that allowed for information requests, evidence and argument and approved the application on 11 September 2007.

Enbridge Line 9 Tolls Application – RH-2-2007 and subsequent filings

On 11 April 2007, Enbridge Pipelines Inc. applied to the Board to raise the tolls charged to shippers using its 849-kilometre Line 9 pipeline. Line 9, which began westbound service in 1999, ships liquid petroleum from Montreal, Québec to Sarnia, Ontario and onward to refineries in Corunna, Ontario. Enbridge said that the toll increase was needed to cover the company's own revenue requirements for Line 9. The proposed tolls would have applied to the final nine months of 2006

and would have been subject to an additional increase effective 1 January 2007.

In Hearing Order RH-2-2007, issued on 27 April 2007, the Board identified a number of issues for discussion during the proceeding including, the proposed rate base, revenue requirement, capital structure, cost of debt and return on equity. The Board stated that it would also consider the proposed changes to depreciation expenses, whether and to what extent terminal negative salvage should be collected and the appropriateness of establishing proposed deferral accounts. Terminal negative salvage refers to the costs associated with the abandonment of a pipeline, net of salvage proceeds, at the end of its useful economic life. The oral part of the hearing was to begin on 24 September 2007 in Stratford, Ontario.

In a letter issued to the NEB on 12 September 2007, Enbridge withdrew its application, saying the company had reached an agreement with Imperial Oil, Line 9's largest shipper, on the terms and conditions of a new transportation service agreement for Line 9.

NEGOTIATED SETTLEMENTS

To improve the efficiency of the regulatory process, the Board supports the use of negotiated settlements as an alternative to toll hearings. A negotiated settlement is an agreement between a pipeline company and interested persons concerning issues related to the company's revenue requirement, tolls, toll design, tariff, or other matters. In the process leading to such an agreement, interested persons are given a fair opportunity to participate and to have their interests recognized and appropriately weighted

In situations where the settlement is uncontested and the Board is satisfied that the settlement does not contain provisions that are illegal or contrary to the *National Energy Board Act* or the public interest, and that the settlement results in just and reasonable tolls that are not unjustly discriminatory, the need for a formal hearing process before the Board would normally be eliminated. In the last ten years the number of toll hearings has been considerably reduced as the majority of toll matters have been settled by negotiated agreements.

Enbridge also indicated it would file an application with the Board for 2008 tolls along with a second application to make the existing interim tolls final. In a letter issued on 14 September, the Board cancelled the hearing.

On 14 December 2007, Enbridge filed a new application for interim tolls effective 1 January 2008 based on its agreement with Imperial Oil. The Board asked interested parties for their comments on the issues the Board should address, and the process for considering the application. Enbridge said it would file tolls for the period 1 April 2006 to 31 December 2007 in early 2008.

Alliance Pipeline Ltd. 2008 Toll Filing

On 31 October 2007, the Board received an application from Alliance Pipeline Ltd. for tolls effective 1 January 2008. PPM Energy Canada Ltd. (PECL) objected to the new tolls on 12 December 2007. PECL requested a public hearing into the costs underlying Alliance's proposed 2008 Canadian tolls, with a particular interest in Alliance's forecasted rise in operating and maintenance costs. The Board sought comments from interested parties on Alliance's application, and will determine the most appropriate decision process following Alliance's reply to the comments from interested parties in early 2008.

Trans Québec & Maritimes Pipeline Inc. Cost of Capital Application

On 17 December 2007, Trans Québec & Maritimes Pipeline Inc. (TQM) submitted an application to the Board to determine the cost of capital to be used in determining its final tolls for 2007 and 2008. The application also asked the NEB to review its March 1995 RH-2-94 Cost of Capital Decision, only as it applies to TQM. This decision contains the formula that is used to calculate the return on common equity (ROE) to be applied to TQM for 1996 and beyond. TQM also asked the NEB to approve an ROE of 11 per cent on a deemed 40 per cent equity component of the company's capital structure. The calculation would also include TQM's actual cost of debt. Currently, the NEB's approved ROE based on the RH-2-94 formula is 8.71 for 2008 and 8.46 for 2007. TQM's deemed equity component is 30 per cent.

The Board will hold an oral public hearing in 2008.

APPLICATIONS FOR POWER LINE FACILITIES

Although total inter-provincial and international power lines regulated by the Board account for less than one per cent of all transmission infrastructure in Canada, these facilities are vital conduits for electricity trade between Canada and the United States. They enable commercial opportunities and improve the electric reliability of bulk power systems on both sides of the border.

Montana Alberta Tie Ltd.

Montana Alberta Tie Ltd. (MATL) applied to the Board on 20 December 2005 and again on 20 October 2006 with an updated application to construct and operate a 230-kilovolt International Power Line (IPL) from Lethbridge, Alberta to the U.S. border at a point approximately 20 kilometres southwest of the town of Milk River, Alberta.

MATL applied to the Board for a permit to construct and operate an IPL under a provision which states that the Board shall issue a permit without a public hearing. The Board could however recommend to Governor in Council (GIC) that the application be elevated to a certificate process, resulting in a public hearing where the Board could then either approve or deny the application.

In its review of the application, the Board received written submissions from the public, federal and provincial government departments and MATL.

The Board decided it would not recommend to the Minister that the Governor in Council elevate MATL's application to a certificate process. The Board was satisfied that the construction and operation of the IPL would not have any unacceptable effects on the other provinces nor was the project likely to cause significant adverse environmental effects, and therefore approved the application and issued a permit on 4 April 2007.

APPLICATIONS FOR LAND RECLAMATION AND LANDOWNER COMPLAINTS

Robert and Donna Siebert – Alliance Pipeline Ltd. MH-R-1-2007

On 19 May 2006, the Board issued a decision regarding reclamation and monitoring with respect to Alliance's Bear River Crossing of the Spirit River Lateral, and requiring Alliance to take specific actions for reclamation

Challenges to the Board's Decisions

EMERA BRUNSWICK PIPELINE PROJECT -- GH-1-2006

Following the Board's decision to approve the project, the Friends of Rockwood Park filed an application with the Federal Court of Appeal for judicial review and another for leave to appeal, on the grounds that the Board failed to comply with both section 16 of the *Canadian Environmental Assessment Act* and the Board's final scoping document, and that the environmental assessment was therefore invalid and unlawful. On 20 September 2007, the Federal Court of Appeal dismissed the leave to appeal with costs. The judicial review was discontinued by the Friends of Rockwood Park on 11 October 2007.

ALIDA TO CROMER CAPACITY EXPANSION - 0H-2-2007

Following the rendering of the NEB decision, the Standing Buffalo Dakota First Nation (SBDFN) filed an application for review of the decision pursuant to section 21 of the NEB Act. The SBDFN also filed an application for leave to appeal with the Federal Court of Appeal. The section 21 review decision upheld the NEB decision and the Federal Court of Appeal dismissed the SBDFN's application for leave to appeal the ACCE decision.

ALLIANCE PIPELINE LTD. APPLICATION FOR 2008 TOLLS - GHW-1-2007

On 11 October 2007, the Canadian Association of Petroleum Producers (CAPP) filed an application for review of the GHW-1-2007 decision as well as an application to stay the decision. CAPP also filed an application for leave to appeal with the Federal Court of Appeal. The Federal Court of Appeal dismissed the application for leave to appeal on 23 November 2007.

MONTANA ALBERTA TIE LIMITED

In May 2007, an application for Leave to Appeal, Brian Staszenski v. NEB and MATL, was filed in the Federal Court of Appeal. The Federal Court of Appeal dismissed the case in September 2007.



due to the presence of scentless chamomile on the Sieberts' properties northwest of Grande Prairie, Alberta.

On 20 June 2006, Alliance applied for a review of the Board's decision. The Board subsequently decided to review the decision in two stages. The first stage included a determination of whether the Board had the statutory authority to require Alliance to conduct reclamation activities on the Sieberts' properties outside the right of way or temporary workspace. On 20 March 2007, the Board announced that it did have the authority so long as the damage is caused by Alliance.

For the second stage of the review, the Board decided to hold an oral hearing to consider the reclamation issues in dispute, the cause of the damage, and the requirement for remediation. Hearing MH-R-1-2007 was held in Clairmont, Alberta on 26 and 27 June 2007. The hearing was followed by a post-hearing meeting between the two parties on 13 August 2007, where they reached an agreement on some issues.

In October 2007, the Board issued its decision on outstanding issues in the hearing. The Board was of the view that it was more likely that the scentless chamomile was introduced onto the Sieberts' properties by Alliance's activities than by other potential sources. The Board determined that Alliance was responsible for monitoring, hand picking and spraying scentless chamomile on the Sieberts' properties. The Board also determined that the Sieberts were responsible for monitoring the land on and off the right of way, and for notifying Alliance if any scentless chamomile is found. The Board noted that it did not expect to address issues via a public hearing that should easily be resolved through meaningful consultation between pipeline companies and landowners or through Appropriate Dispute Resolution, which is offered by the Board.

Hélène Campbell – TransCanada PipeLines Ltd. – MH-1-2007

In 1966, TransCanada PipeLines Ltd. built a pipeline across the lands of Mme Hélène Campbell in the municipality of Saint-Sébastien, Québec. In 2006, TransCanada received approval to construct the Saint-Sébastien Loop, which consists of looping 6.5 kilometres of the 1966 pipeline. However, TransCanada was not able to acquire the necessary land rights in order to construct the pipeline.

Subsequently, Mme Campbell filed an application under section 46 of the NEB Act, dated 29 March 2007, to change the route of TransCanada's existing pipeline, on the grounds that it interfered with her drainage system. The Board also received an application, dated 20 April 2007, from TransCanada for an immediate right of entry on and across Mme Campbell's lands. The Board expressed the view that Mme Campbell has raised issues in her application which need to be heard in an oral hearing, and has decided to consider the right of entry application in the same proceeding, planned for January 2008 in Saint-Jean-sur-Richelieu, Québec.

ACTIVITY IN FRONTIER REGIONS

The NEB assessed 36 project applications related to geological, geophysical and drilling activities in frontier regions under the *Canada Oil and Gas Operations Act* in 2007. The majority of applications (80 per cent) were filed by companies operating in the Central Mackenzie region; the remainder related to exploratory work in the Mackenzie Delta and Beaufort Sea. Nearly 40 per cent of the 36 applications were for routine geophysical and geological operations, such as seismic work and airborne surveys.

The NEB also assessed three significant discovery applications under the *Canada Petroleum Resources Act*. Two of these significant discoveries are located in the Mackenzie Delta and one in the Central Mackenzie region.

One of the geological activities involved a twodimensional seismic program in Baffin Bay in October 2007. This was the only NEB-regulated exploratory activity in Eastern Canada in 2007.

The Board continued to provide regulatory support to the Yukon Government in its administration of oil and gas activities. The NEB's exploration and production team worked with partners in the North including other federal agencies, territorial government and land and water boards, to improve regulatory efficiency. The Board also worked with industry on a variety of initiatives and promoted the use of best practices.

Increasing concerns about climate change and greenhouse gas emissions along with legislation, such as the *Canada's Clean Air Act*, have spurred a need for air quality guidance in the Northwest Territories (NWT). The Government of the Northwest Territories

is developing guidelines for air quality and emissions for the upstream oil and gas industry operating in the NWT. The NEB provided feedback on the development of these guidelines.

The NEB provides regulatory oversight throughout the life cycle of a project. As part of its compliance verification program, the Board conducts environmental and safety inspections and audits to ensure compliance with NEB-authorized program conditions and regulatory requirements. The exploration and production team fosters collaborative working relationships with inspectors from Indian and Northern Affairs Canada as well as other government agencies in the North.

The Board maintains an up-to-date engagement program for northern stakeholders to help ensure responsible development of northern resources. Recent Aboriginal engagement initiatives indicate that the current NEB approach is effective.

The NEB continued to promote awareness of the NWT Spill Line, a 24-hour telephone line maintained by the Government of the NWT for reporting spills. As well, members of the NEB's exploration and production team met with community members during inspections and other occasions. These activities increased the Board's familiarity with community representatives, helped build relationships of trust and enhanced the NEB's understanding of local issues.

In 2007, the exploration and production team also:

- Drafted the new Canada Oil and Gas Drilling and Production Regulations, goal oriented regulations that will replace the more prescriptive Canada Oil and Gas Drilling Regulations and Canada Oil and Gas Production and Conservation Regulations;
- Proposed amendments to the Canada Oil and Gas
 Operations Act and the Canada Petroleum Resources
 Act to improve regulatory efficiency; and,

 Completed the technology upgrades for frontier operations to reflect the change from a North American Datum 1927 to a North American Datum 1983, aligning with industry.

During 2007, an increasing number of visitors came to the NEB's Calgary-based frontier information office to access data released from past exploration activity. This interest could translate into a sizable increase in the level of frontier exploration activity over the next few years as companies analyze and act on the information.

Preparing for the Future

Activity level in Canada's northern frontier in 2008 and beyond is contingent on a number of factors, chief among them being the status of the Mackenzie Gas Project. The Board has observed the entry of new players in the Northwest Territories and subsequent geological and geophysical activity, including seismic operations.

An increase in drilling activity in the Northwest Territories is possible. A return of activity would not be sudden. Rather, a gradual increase in the number of authorization requests for both seismic and drilling programs should be expected.

Negotiations between the Federal Government and the Northwest Territories on the devolution of natural resource management are ongoing. The effect of devolution would reduce the geographic extent of the NEB's responsibilities for crude oil and natural gas exploration and production activities to Nunavut and certain offshore areas. The NEB may provide support to the Government of the Northwest Territories for such activities under a service agreement similar to the one that exists between the NEB and the Government of Yukon.







anada's energy sector is responding to tight energy markets by developing new large infrastructure projects, including oil pipelines, natural gas pipelines, liquefied natural gas receiving terminals and power generation and transmission facilities. These projects could bring additional energy supplies to Canadians and help ensure future energy supplies.

The NEB is responsible for reviewing many of the applications for these infrastructure projects and ensuring that, if they are found to be in the public interest, they proceed in ways that provide benefits to Canadians while minimizing any adverse impacts.

Although the NEB is responsible for regulating only certain aspects of the Canadian energy industry, issues such as renewable energy, emissions and the effects of growing oil sands development can affect the work of the NEB. Canada's Energy Future, a report released in November 2007, includes a comprehensive energy supply and demand outlook for 2005 to 2030. In preparing that report, NEB staff consulted more than 250 groups and individuals representing industry, government, non-governmental organizations and academia. In addition, more detailed information on 2007 energy trends can be found in the Canadian Energy Overview, to be released in May 2008.

CRUDE OIL

Highlights

- In November 2007, the price of West Texas Intermediate (WTI) crude oil soared to a record closing price of US\$98.18 per barrel.
- Canada's oil sands production increased by about 10 per cent.
- With a return to full production at Hibernia and Terra Nova, offshore crude oil production from Canada's East Coast increased by 25 per cent.
- Oil export revenues were approximately \$41.5 billion and total volumes of exports are expected to reach 162 million cubic metres (657 million barrels).

In November 2007, the price of benchmark West Texas Intermediate crude oil peaked at a record intra-day price of US\$99.16 per barrel, a 50 per cent increase over prices at the start of the year. Ongoing geopolitical uncertainty in Iran, Iraq and Nigeria, in combination with low spare producing capacity worldwide, was a major contributor to rising prices and market volatility. Tightening worldwide inventories for crude oil and petroleum products, as a result of OPEC production cuts, also supported higher prices. At year-end, WTI was about US\$96 per barrel. The 2007 average price of US\$72 per barrel represents a 10 per cent increase over the 2006 average price.

In 2007, Canada produced an average of 445 000 cubic metres (2.8 million barrels) per day of crude oil. On average, about 286 000 cubic metres (1.8 million barrels) of crude oil per day were exported – almost all to the United States. Oil export revenue amounted to approximately \$41.5 billion in 2007 – a record high.

High crude oil prices and strong demand continue to stimulate development, including a 10 per cent increase in production from Canada's oil sands. This supply increase more than offset the steadily declining production of conventional crude oil from the Western Canada Sedimentary Basin. In October 2007, the Alberta government announced the province's new royalty framework. The full impact of the new framework is not yet clear and the Alberta government is working with industry to make adjustments to the system, particularly with respect to deep oil and gas wells.

On the East Coast, production averaged 60 300 cubic metres (379 900 barrels) per day, 25 per cent over 2006 levels. This reflects a return to near full capacity in 2007 after operational difficulties at Hibernia and Terra Nova reduced production in 2006. The three producing crude oil offshore fields – Hibernia, Terra Nova and White Rose – have the capacity to produce approximately 68 000 cubic metres (428 400 barrels) per day.

NATURAL GAS

Highlights

- North American natural gas markets were well supplied, which resulted in natural gas priced at Henry Hub ranging between US\$6 and US\$8/MMBtu throughout 2007.
- Canadian natural gas production declined to 470 million cubic metres (16.6 billion cubic feet) per day as a result of high costs, which slowed down drilling activity.
- Net natural gas exports are projected to be about
 92.8 billion cubic metres (3.3 trillion cubic feet).
 Net export revenue is expected to be \$24.5 billion.

Increased natural gas production in several large U.S. basins and higher imports of liquefied natural gas into North America offset slightly lower Canadian natural gas production in 2007 in the North American

market. The increased overall supply combined with an overhang in storage due to mild weather resulted in less volatile natural gas prices compared with recent years. Natural gas prices at Henry Hub, the pricing point in Louisiana for natural gas traded on the New York Mercantile Exchange, ranged between US\$6/MMbtu and US\$8/MMbtu throughout the year.

Natural gas production from Western Canada decreased slightly from 2006, averaging about 459 million cubic metres (16.2 billion cubic feet) per day. In previous years, rising drilling activity has offset declining well productivity to keep natural gas supply from the Western Canada Sedimentary Basin relatively flat. However, drilling activity was lower in 2007 as producers faced rising costs to develop natural gas resources, while prices for natural gas remained relatively steady. Other economic conditions also contributed to the decline in drilling, including high oil prices which diverted investments away from natural gas toward crude oil production, and a rising Canadian dollar in the second half of the year which effectively reduced the revenue from export sales, which are generally priced in U.S. dollars.

There was some growth in production from the East Coast. There was also an increase in production from coalbed methane (CBM), natural gas that is formed and remains trapped in coalbeds. In Alberta, CBM production increased from the Horseshoe Canyon and the Mannville formations. In Atlantic Canada, production levels were boosted slightly by the addition of compression at the Sable Offshore Energy Project and new onshore production from the McCully field in New Brunswick. As a result of these activities, production from Atlantic Canada exceeded 11 million cubic metres (400 million cubic feet) per day, up from 10 million cubic metres (352 million cubic feet) per day in 2006.

However, the growth in coalbed methane production in Alberta and offshore gas in Atlantic Canada was not sufficient to overcome the decline in conventional natural gas production from the Western Canada Sedimentary Basin. Overall, Canadian natural gas production in 2007 is expected to average about 470 million cubic metres (16.6 billion cubic feet) per day, down 11 million cubic metres (400 million cubic feet) per day from 2006.

Canada exports slightly more than half of its annual natural gas production to the United States. Natural gas export volumes were up slightly in 2007 over 2006;

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however, this was offset by significantly higher natural gas imports into Canada in Ontario. Net natural gas exports in 2007 are projected to be about 92.8 billion cubic metres (3.3 trillion cubic feet), down slightly from 2006. Net export revenue is expected to be \$24.5 billion.

Canadian natural gas consumption has been steadily increasing over the past decade, driven by economic and population growth. In 2007, natural gas use in Canada was about five per cent higher than in 2006 due to space heating demand and additional gas-fired electricity generation in Ontario and Québec. Further increases are anticipated in coming years for oil sands production growth in Alberta and growing demand for gas-fired power generation, especially in Ontario.

NATURAL GAS LIQUIDS (NGLs)

Highlights

- Exports of propane and butanes declined slightly.
- The use of natural gas liquids for diluent increased.
- Enbridge Pipelines Inc. filed an application with the NEB to reverse Line 13 and import diluent from the U.S. Midwest.

Natural gas liquids include ethane, propane, butanes and pentanes plus (also referred to as C5+ or condensate).

Natural gas liquids are mainly derived from natural gas production. However, they can also be derived from crude oil refining. In 2007, about 14 per cent of propane and 50 per cent of butane supply came from refinery processes.

With ethane production at about 42 300 cubic metres (267 000 barrels) per day, supply was tight in 2007 and no volumes were available for export.

In 2007, propane and butane production averaged about 30 300 cubic metres (190 000 barrels) and 23 000 cubic metres (144 500 barrels) per day, respectively. Excess volumes of propane and butane were available for export throughout the year; however, vear-over-year exports declined slightly. This decline is due to two main factors: first, the growing use of heavier natural gas liquids for bitumen diluent in Alberta (diluent is a diluting agent that helps bitumen flow more easily through a pipeline); and second, reduced demand for heating fuel in the United States. Given the rapid pace of oil sands development, the use of heavy natural gas liquids, such as pentane plus and butane, for diluent increased in 2007 and this trend is expected to continue. With respect to condensate diluent requirements, Enbridge Pipelines Inc. filed an application with the NEB on 9 March 2007 to reverse Line 13 and import diluent from the U.S. Midwest as part of its Southern Lights Project.





ELECTRICITY

Highlights

- Electricity supplies were adequate to meet domestic demand across Canada.
- Canada's net electricity exports increased from 17.4 terawatt hours in 2006 to approximately 30.6 terawatt hours in 2007.
- Total net export revenues increased from \$1.3 billion in 2006 to \$2.1 billion in 2007.
- Planning efforts continue across Canada to ensure that domestic supply will meet demand in the future.

In 2007, electricity supplies continued to meet domestic energy demand. At the beginning of 2007, total installed electric generation capacity in Canada was approximately 124 000 megawatts. As in 2006, generation additions over the year mainly consisted of natural gas-fired generation and wind generation. Wind generation capacity increased to 1 770 megawatts, up more than 300 megawatts from 2006.

Following a decline in net exports in 2006, Canada's total net exports increased from 17.4 terawatt hours in 2006 to approximately 30.6 terawatt-hours in 2007 or an estimated five per cent of total generation. Net export revenues increased from \$1.3 billion in 2006 to approximately \$2.1 billion in 2007. The increases in net exports and net revenues can be attributed to favourable export opportunities south of the Canada/United States border and good water conditions in hydro-generating provinces such as British Columbia, Manitoba and Québec. The export price increased from an average of \$60 per megawatt hour in 2006 to about \$63 per megawatt hour in 2007, while the import price increased from an average of \$49 per megawatt hour in 2006 to approximately \$54 per megawatt hour in 2007.

Planning efforts continue across Canada to ensure that domestic supply will be adequate to meet future demand. In 2007, several jurisdictions published reports describing their energy strategies, including British Columbia, Saskatchewan and Newfoundland and Labrador. A diversity of generation options is being considered with an emphasis on developing green electricity generation technologies.









he NEB has an influence on the efficiency of energy infrastructure and markets through its regulatory decisions related to pipeline facilities, pipeline tolls and tariffs, and energy imports and exports. In pursuing the goal of economic efficiency, the Board strives to provide effective regulatory processes and foster adequate energy infrastructure and informed energy markets.

EFFECTIVE REGULATORY PROCESSES

Effective regulatory processes help create the conditions required for investors and industry to proceed with new energy projects or infrastructure. The NEB understands that unnecessarily slow, lengthy or complicated regulatory processes lead to delays in infrastructure development, increased costs and could lead to the abandonment of a project that is in the public interest. By streamlining the regulatory process and working proactively with other federal and provincial departments, the NEB has been successful in reducing or climinating obstacles to development while ensuring it is conducted responsibly in the public interest.

SERVICE STANDARDS

In today's results-based management environment, service standards have become an essential tool for building effective, citizen-focused service in organizations. The NEB develops and applies service standards to many of its regulatory functions and services to measure efficiency and to help manage the expectations of stakeholders. Table 1 identifies service standards for various tasks at the NEB.

In 2007, the Board met many of its service standards. In those cases where it did not, the NEB has developed and adopted an action plan to address any challenges to meeting these service standards

ELECTRICITY EXPORT PERMIT APPLICATIONS

In 2007, the NEB published new service standards for electricity export permit applications which allowed for applications to be sorted into one of three categories based on the complexity of issues associated with the application. In addition, new tools and procedures were put in place to support the Board's effectiveness and efficiency in processing electricity export applications. For example, a new, simplified, electronic application form along with an electricity export application e-filing guide and an updated list of frequently asked questions for *Category A* permits, which are generally routine matters that generate little public concern, were added to the Board's website. In 2007, the NEB achieved a 100 per cent success rate in processing all electricity export points, applications within the published service standards, as shown in Table 2.

SERVICE STANDARDS FOR APPLICATIONS NOT REQUIRING A HEARING

The Board receives some applications which do not require a public hearing in order to make a decision. For example, an application to build a pipeline shorter than 40 kilometres is normally considered under Section 58 of the *National Energy Board Act*. Table 3 shows the service standards and results for section 58 applications.

ADEQUATE ENERGY INFRASTRUCTURE

Adequate energy infrastructure is essential to an effectively functioning energy market. Inadequate pipeline capacity reduces a shipper's ability to transport energy products to market and causes reduced revenues for producers, lower income tax revenues to governments, and potentially higher prices for consumers. For example, when shippers request transportation for more crude oil than a pipeline can transport, each shipper is required to cut back or 'apportion' its shipments. When pipeline capacity is constrained, oil may be shut-in or shippers may be forced to sell their products at lower prices in less attractive markets. Discounts on heavy and light crude

oil tend to increase when there is inadequate pipeline capacity or a lack of available markets. During 2007, heavy crude oil inventories were building partly due to pipeline constraints and problems at U.S. refineries. This increase in inventories put downward pressure on heavy crude oil prices relative to the benchmark West Texas Intermediate price.

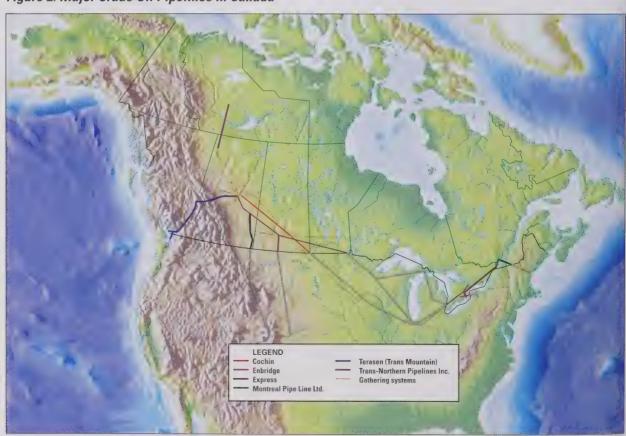
Furthermore, inadequate infrastructure would have a potentially significant impact on Canadians as consumers of energy if adequate supplies cannot be delivered to markets, especially at times of high need, such as a cold winter day.

CRUDE OIL PIPELINE CAPACITY

Increasing production from the oil sands has resulted in tight pipeline capacity out of the Western Canada Sedimentary Basin. Throughout 2007, the major export pipelines were operating at or near full capacity or under apportionment.

In 2007, Enbridge Pipeline Ltd. operated at about 87 per cent of capacity, with actual throughput averaging 254 000 cubic metres (1.6 million barrels)

Figure 2: Major Crude Oil Pipelines In Canada



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Table 1: National Energy Board Service Standards and Results in 2007

Task	Service Standard	No. of Applications or Requests in 2007	Results	
Release of Hearing Decision	80% complete within 12 weeks following a public hearing	4	7 5%	
COGO Act Applications to drill a well	Decision rendered within 21 calendar days of the receipt of a complete application	10	100%	
COGO Act Geological and Geophysical Applications	Decision rendered within 30 calendar days of the receipt of a complete application	19	100%	
New Authorization for export of crude oil and/or petroleum products	2 working days (Short-term Orders only. Long-term licences are subject to a full hearing process)	9 orders	89%	
Renewals for authorization for export of crude oil and/or petroleum products	No service standard	95 renewals	N/A	
Authorization for export and import of natural gas	2 working days (Short-term Orders only). Long-term licences are subject to a full hearing process).	139 orders	99%	
Authorization for export of NGLs	2 working days	114 orders	99%	
CPR Act Applications	80% of decisions rendered within 90 calendar days from the day all information is available to begin the evaluation	3	100%	
Financial Audits	80% of draft audit reports will be sent to the company within 8 weeks of field work completion	3	100%	
Landowner Complaints	80% resolved within 60 calendar days of receipt of the initial complaint (subject to the complexity of the complaint)	18	50%	
Responding to NEB library requests	Respond to requests within 1 working day of receipt	1748	93%	

Table 2: Service Standards for Electricity Export Applications in 2007

Category	Complexity of Issues	Electricity Export Decision Release	No. of Applications	Results	Average Cycle Times
А	Minor complexity of issues	80% of decisions released within 40 calendar days following the completion of the Notice of Application period	7	100%	35 days
В	Moderate complexity of issues	80% of decisions released within 90 calendar days following the completion of the Notice of Application period	3	100°	72 days
С	Major complexity of issues	No service standard	0	N/A	N/A

per day (Figure 3). Capacity was adequate throughout 2007 and no apportionment was required; many of the lines which comprise the Enbridge system were, however, fully subscribed throughout the year. Planned apportionment on the system for December was lifted due to a November accident on Enbridge's Line 3 near Clearbrook, Minnesota.

Kinder Morgan Canada's Trans Mountain pipeline system operated at approximately 95 per cent of capacity based on a combined light and heavy crude capacity of 49 200 cubic metres (225 000 barrels) per day. A pump station expansion in April resulted in a capacity increase of 5 600 cubic metres (35 000 barrels) per day. The Trans Mountain system was under apportionment for much of the year as continued capacity restrictions at the Westridge Dock did not allow for more crude oil to be shipped. Apportionment ranged from one per cent in May to 25 per cent in December, with March being the only month that the system was not apportioned. The TMX Anchor Loop project, which the Board approved in 2006, will add 6 350 cubic metres (40 000 barrels) per day of pipeline capacity to the Trans Mountain system and is expected to be in service by November 2008.

The Express Pipeline Ltd. operated on average at 76 per cent of capacity with throughput averaging 34 300 cubic metres (215 800 barrels) per day. There was no apportionment on the Express pipeline in 2007. However, as a result of the smaller capacity on the downstream connecting Platte system, Express is limited in the volume that can be shipped from Hardisty.

The Cochin Pipelines Ltd. system is the largest and longest natural gas liquids pipeline in Canada. In January 2007, Kinder Morgan Energy Partners L.P. acquired full ownership and became the operator by purchasing the remaining interest from BP Canadian

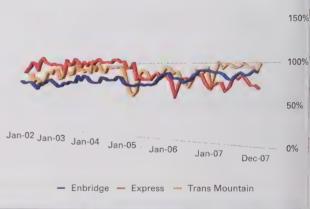


Energy Company. In 2007, the Cochin system operated at about 43 per cent of capacity, with actual throughput averaging 5 500 cubic metres (34 200 barrels) per day. Cochin continued to operate under voluntary pressure restrictions due to a defect found in the U.S. portion of the pipeline in March 2006. To avoid apportionment, in August 2006 it suspended shipments of ethylene and in the third quarter of 2007 it ceased shipments of ethane.

The industry is actively involved in finding ways to develop markets in high demand areas such as the U.S. Gulf Coast (Southern PADD III) and Chicago (Eastern PADD II). BP, for example, announced in 2007 that it was investigating the possibility of reversing its Line 1 pipeline that currently runs from Cushing, Oklahoma to Chicago, Illinois. Enbridge and Exxon announced they were looking at a joint initiative to build a pipeline from Patoka, Illinois to Beaumont, Texas. Enbridge also plans to expand the capacity of its Spearhead pipeline by 10 000 cubic metres (63 000 barrels) per day.

In Canada, TransCanada's Keystone application was approved by the Board in 2007. The Canadian portion of the pipeline had an initial design capacity of 69 200 cubic metres (435 000 barrels) per day.

FIGURE 3 - OIL PIPELINE CAPACITY UTILIZATION





In November 2007, Keystone applied to expand the capacity of this line and the Board is considering the application. If an expansion is approved and built, this project will create 94 000 cubic metres (590 000 barrels) per day of additional pipeline capacity to the Chicago area and on to Cushing. Oklahoma. In 2007, Enbridge filed applications for its Line 4 Extension and Alberta Clipper projects. Alberta Clipper has an initial capacity of 71 000 cubic metres (450 000 barrels) per day and is part of Enbridge's larger Southern Access project. In 2007, Enbridge also filed an application for its Southern Lights project which would see diluent delivered into Alberta from PADD II by reversing an existing Enbridge pipeline. The project will also include the construction of a light oil pipeline from Cromer, Manitoba to the Canada / U.S. border.

The NEB continues to monitor the adequacy of pipeline capacity to carry crude oil and its products from Western Canada to export and domestic markets. The industry is considering a variety of options to increase pipeline capacity, which could result in additional applications to the Board. The Board believes that it is most appropriate for industry to identify which pipeline expansion projects it should support. The Board's role is to provide efficient and effective regulatory processes that do not unduly delay these projects, while at the same time ensuring that projects are in the public interest.

NATURAL GAS PIPELINE CAPACITY

Approximately 98 per cent of Canadian natural gas production comes from the Western Canada Sedimentary Basin (WCSB). Natural gas production from the WCSB is transported via pipeline to serve regional markets in Western Canada, domestic markets in Eastern Canada, and export markets in the Pacific Northwest, California, the Midwest and the Northeast of the United States. Between 1999 and 2006, average annual marketable natural gas production from Western Canada was quite flat at about 16.7 billion cubic feet (473 million cubic metres) per day. Throughout the 1990s, a series of major natural gas pipelines were expanded. As a result of flat production levels and pipeline expansions, the capacity to ship WCSB natural gas to markets outside Western Canada has been more than adequate since early 2001.

A downturn in drilling activity in Western Canada began in mid-2006, resulting in a drop in WCSB productivity. By early 2008 production was down to approximately 16 billion cubic feet (453 million cubic metres) per day. In addition, since 2001 there have been slight yearly increases in natural gas demand in Western Canada. This increase in Western Canadian demand and decrease in natural gas production has occurred when natural gas pipeline capacity is adequate, resulting in ample natural gas pipeline capacity from Western Canada.

Table 3: Service Standards results for Section 58 Applications in 2007

Category	Complexity of Issues	Electricity Export Decision Release	No. of Applications	Results	Average Cycle Times
Α	Minor complexity of issues with no third party interest	80% completed within 40 calendar days of the receipt of a complete application	14	93%	35 days
В	Moderate complexity of issues with possible third party interest	80% completed within 90 calendar days of the receipt of a complete application	3	100%	68 days
С	Major complexity of issues with likely third party interest	80% completed within 120 calendar days of the receipt of a complete application	N/A	N/A	N/A

With an abundance of natural gas pipeline capacity and an increasing demand for crude oil pipeline capacity in Western Canada, a small portion of the natural gas pipeline capacity is being converted to transport crude oil. Even with this conversion, natural gas pipeline capacity in Western Canada will still be adequate. Pipelines transporting natural gas from Canada's other major producing areas offshore Nova Scotia and onshore New Brunswick also have adequate capacity.

Figure 5 shows the difference in natural gas prices between the Alberta border and the Dawn delivery point in southwestern Ontario. It also compares the price difference with the firm service toll (including fuel costs) between these two locations on the TransCanada PipeLines system, the largest natural gas transmission system in Canada. The fact that the price difference is typically lower than the cost of firm service transportation indicates that there is adequate pipeline capacity in place. The Board tracks similar data for other Canadian natural gas pipeline corridors and is satisfied that there is generally sufficient natural gas pipeline capacity.

Figure 4: Major Natural Gas Pipelines In Canada

ELECTRICITY GRID CAPACITY

International power lines regulated by the Board are important conduits for electricity trade between Canada and the United States. While the NEB Act authorizes the Board to regulate designated inter-provincial power lines, there are currently no inter-provincial lines under NEB jurisdiction. In 2007, international transmission lines continued to enable commercial opportunities and improve electric reliability of bulk power systems on both sides of the border. The correlation between wholesale electricity prices in Figure 6 is an example of Canadian markets working efficiently with electricity trade markets in the United States.

Alberta has only been able to partially capitalize on differentials between Alberta and Pacific Northwest power prices. Transmission constraints continue to limit the volume of energy that can be traded between the regions. Had the two markets been in closer correlation. i.e. had Alberta been able to import greater amounts of electricity from the U.S. Pacific Northwest thereby increasing its market liquidity, it is likely Alberta would not have seen the extreme price spike shown in Figure 7.



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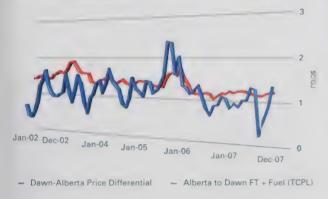
Currently the two markets do appear to be somewhat correlated, largely due to natural gas setting the wholesale electricity price for both regions.

PIPELINE SERVICES SURVEY HIGHLIGHTS

The Board conducted its third annual Pipeline Services Survey to obtain direct feedback from the customers of the major NEB-regulated pipeline companies on the quality of service provided by those pipelines. The survey also solicits feedback on the Board's regulatory performance with respect to tolls and tariffs.

Shippers who responded to the NEB's 2007 survey gave timeliness and accuracy of invoices and statements high marks with an average score of 3.87 out of five while satisfaction with the level of transportation tolls ranked lowest with an average rating of 3.16 out of five. Overall,

FIGURE 5: COMMODITY PRICE DIFFERENTIALS (Dollars per gigajoule)



shippers remain reasonably satisfied with the services provided by the pipelines and the NEB.

A summary of the 2007 aggregate results was posted on the NEB website in May 2007. The Board also provided each pipeline company and its shippers with detailed company-specific results, including comments received from shippers.

EFFICIENT AND INFORMED ENERGY MARKETS

The NEB continually monitors Canadian energy markets to ensure that Canadians have access to Canadian-produced crude oil, natural gas and electricity on terms and conditions that are not less favourable than those available to export customers. The Board also provides data and analysis on a wide range of topics, including energy export volumes and prices, developments in

FIGURE 6: ONTARIO (INDEPENDENT ELECTRICITY SYSTEM OPERATOR) VERSUS U.S. ELECTRICITY PRICES (Dollars per megawatt hour)

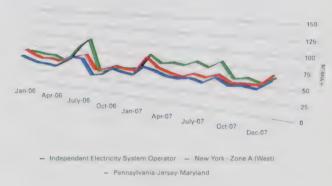


FIGURE 7: ALBERTA (INDEPENDENT ELECTRICITY SYSTEM OPERATOR) VERSUS U.S. ELECTRICITY PRICES

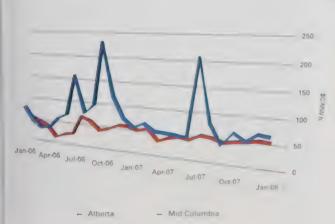
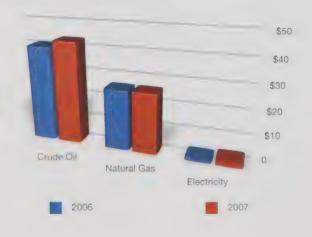


FIGURE 8: ESTIMATED NET EXPORT REVENUES BY COMMODITY

(Billions of Canadian dollars)



natural gas, crude oil and electricity markets; assessments of the supply, demand and future deliverability of natural gas and crude oil; and periodic long-term outlooks for Canada's energy future. Figure 8 shows 2007 estimated net export revenues by commodity.

Providing and interpreting energy market information contributes to the efficient operation of energy markets. Investors, industry planners and consumers can make more informed decisions when they have accurate information provided by an impartial agency such as the NEB. The following is an overview of energy market trends and developments observed in 2007. More detailed assessments can be found in the publications listed at the end of this section and on the Board's website. A plain language discussion of Canadian energy markets is posted in the Energy Pricing section of www.neb-one.gc.ca.

CRUDE OIL MARKET

In 2007, the crude oil market functioned efficiently, meaning Canadians had access to Canadian crude oil at a similar price to that paid by export customers (Figures 9 and 10). Canadian light crude oil prices were relatively low in the first half of 2007 as a result of lower world prices and high inventory levels in the Cushing, Oklahoma market where Canadian light crude oil competes. In the second half of the year, prices began to rise as a result of a combination of strong world demand and declining inventories in major markets. Edmonton Par reached record prices in November despite the rising Canadian dollar which somewhat offset the impact of rising West Texas Intermediate prices. Edmonton Par averaged about \$77 per barrel in 2007, a rise of about five per cent over 2006.

Canadian heavy crude oil prices in 2007 generally tracked movements in the market for Canadian light crude oil. Prices for Canadian heavy crude were, however, impacted by refinery disruptions in the U.S. Midwest which caused periods of deep price discounting. In addition, the normal price movements associated with seasonal demand changes for heavy crude oil for asphalt production also affected prices. Western Canada Select (WCS), the Western Canada heavy crude oil benchmark (20° API gravity and 3.24 per cent sulphur), averaged about \$53 per barrel in 2007, a rise of four per cent over 2006.

NATURAL GAS MARKET

In 2007, the natural gas market functioned effectively, meaning Canadians generally paid no more than export customers for natural gas (Figure 11). Domestic natural gas prices at AECO-C, the main pricing point for natural gas in Alberta, continued to be well connected to continental prices at Henry Hub and were equal to or lower than the price at export points in Eastern Canada. Additionally, the NEB tracks and monitors regional export and domestic markets to ensure that natural gas prices in other Canadian markets are well connected to North American market prices. This data is available on our website.

U.S. supply growth, higher LNG imports, ample natural gas in storage, a lack of sustained hot summer weather, and the absence of any major tropical storms have all contributed to a moderation in natural gas prices. In 2007, natural gas prices started the year at a high level due to cold winter weather in December 2006. After that period, prices were essentially flat for the remainder of the year since there were neither supply concerns nor extreme weather conditions.

EDMONTON PAR PRICE

In Western Canada, the price of Edmonton Par, a high-quality, light crude oil (40° API gravity and 0.5 per cent sulphur), is the benchmark for all varieties of light crude oil produced in the region. Other crude oils are priced higher or lower than Edmonton Par, depending on their comparative quality. The price of Edmonton Par, in turn, is based on the price at which WTI is sold in Chicago, since this is where the price of exported Canadian crude oil competes in the United States.



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FLECTRICITY MARKET

Canada is a net exporter of electricity. These exports provide electric utilities and provincial governments with a key source of revenue. Major exporters include hydropower-generating provinces such as British Columbia, Manitoba, and Québec. A continued strong electricity trade relationship between Canada and the United States suggests that gains in reliability and export revenue are being made.

ENERGY MARKET ASSESSMENT REPORTS

During 2007, the Board prepared the following publications and statistical reports related to energy commodities, including crude oil, natural gas and electricity. These reports are available on the NEB's website at www.neb-one.gc.ca.

Canadian Energy Overview – This new report presented an overview of energy commodities supply and markets activity in Canada during 2006.

Short-Term Canadian Natural Gas Deliverability 2007-2009 – In this annual energy market assessment, the NEB reviews the volume of natural gas that can be delivered to markets from all Canadian sources in the next three years.

FOCUS ON ENERGY ISSUES AND INFORMATION

As energy issues play an increasingly important role in their lives and economy, more and more Canadians are turning to the NEB for objective, accurate and timely information about Canada's energy system.

The Energy Information Program was established in 2007 to consolidate the Board's information resources and enhance efforts to increase awareness about its collection of reports and statistics.

Key publications such as seasonal energy outlooks, energy market assessments, forecasts and energy overviews will be managed under this new program, which also oversees the energy pricing section, speeches, presentations and statistics posted on the website.

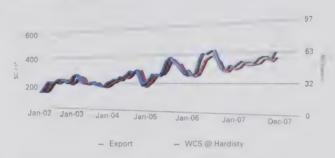
This initiative is part of the NEB's goal to continually improve the usefulness and accessibility of energy-related information to diverse audiences such as the Canadian public, oil and gas companies, the media, staff members and other stakeholders.

FIGURE 9: LIGHT CRUDE OIL POSTED AND EXPORT PRICE AT EDMONTON (Cdn Dollars Per Barrel)



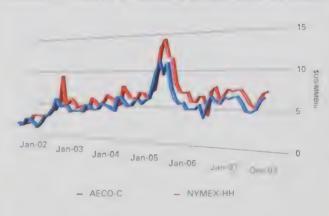
FIGURE 10: HEAVY CRUDE OIL POSTED AND EXPORT PRICE AT HARDISTY (Cdp Dollars Per Parrel)*

(Cdn Dollars Per Barrel)*



*Note Pricing tracks vary because of differences in crude oil quality

FIGURE 11: NORTH AMERICAN NATURAL GAS PRICES



Canadian Hydrocarbon Transportation System:

Transportation Assessment – This yearly report examines the adequacy and economic efficiency of the more than 45 000 kilometres of pipelines regulated by the NEB.

In 2007, the Board published semi-annual outlooks of Canadian energy markets. These outlooks assess the supply and demand balance going into heating and cooling seasons and provide the Board's expectations of how the markets will perform over the ensuing months.

The NEB also provided Canadians with up-to-date energy pricing information and analysis on its website. The energy pricing section, which examines oil, natural gas, propane and electricity markets, attracted strong interest, recording more than 74 000 visits in 2007.

In May 2007, the NEB launched a new communication tool – energy briefing notes. Its first briefing note, Overview and Economics of the Horseshoe Canyon Coalbed Methane Development, examined the history and current economics of developing this unconventional source of natural gas.

In August 2007, following a recommendation made by the Canada-U.S. task force examining the causes of the August 2003 power outage in Ontario and the Northeastern United States, the Board published a report called *Reporting of Electric Reliability Information by Canadian Entities*. The report concluded that compiling reliability performance information to assess reliability trends would be useful to industry, regulators, policymakers and the public. The report also found that the North American Electric Reliability Corporation was making efforts toward compiling this information and therefore, another entity to provide reliability information in Canada is not justified at this time.





CANADA'S ENERGY FUTURE - A METICULOUS STUDY

Seek, confirm, validate. That was the mantra of the NEB team engaged in the research and development of the Board's highly sought energy market assessment report published in November 2007. Comprehensive in its coverage of all energy fuels and sectors in all of the provinces, Canada's Energy Future examines our energy system from a variety of perspectives, including supply and demand, pricing, economics, and the environment.

Two rounds of consultation with energy experts across Canada resulted in modifications to initial assumptions, methodology and preliminary results. For example, the price range for crude oil was changed after discussions with crude oil market experts who helped the NEB team develop a plausible range of energy outcomes. The authors of the report also incorporated feedback from technical experts familiar with leading edge technology that will affect future production scenarios and others knowledgeable about global energy-related issues and trends.

Published only once every four years, Canada's Energy Future examines three possible energy futures that may unfold for Canadians up to the year 2030.





he NEB is responsible for ensuring the regulated energy industry operates in a manner that protects the employee, contractor, public and environment. The Board's mandate includes oversight for the security of pipelines, associated pipeline facilities, and international power lines. Regulated companies have the primary responsibility for safety, security and environmental protection because they are the designers, builders and operators of the facilities. The Board ensures that companies identify and effectively manage the safety, security, environmental, socio-economic and land risks throughout the life cycle of regulated facilities.

SAFETY PERFORMANCE

In March 2007, the NEB published *Focus on Safety and Environment – A Comparative Analysis of Pipeline Performance 2000-2005*. This is the fifth report comparing the safety and environmental performance of pipeline companies regulated by the Board with comparable industries nationally and internationally. This report is published every spring and includes data from the calendar year ending approximately 15 months earlier.

The 2007 report uses eight key indicators to evaluate performance in the areas of safety, integrity and environmental management. The NEB obtained data for the report through the *Onshore Pipeline Regulations* mandatory reporting requirements and through voluntary reporting by regulated companies under the Safety Performance Indicators Initiative. Using these statistics, the report presents the following key findings, which include data up to the end of the 2005 calendar year:

- 2005 is the eighth consecutive year in which there have been no fatalities on NEB-regulated pipelines.
- 2005 is the third consecutive year in which there were no reported ruptures on NEB-regulated pipelines.
- The NEB data collected over the past six years indicate that, on average, one person is injured for every 200,000 hours worked annually.
- NEB-regulated pipelines have experienced very few pipe body releases of liquid hydrocarbon products over the past six years.
- Subsequent to the publication of the report, new data for 2006 and 2007 was obtained as mandatory and voluntary company reporting continued.

SECURITY MANAGEMENT

Along with Natural Resources Canada, the NEB has been responsible for the security of Canada's federally-regulated energy infrastructure since 2005. From natural disasters to malicious acts, the Board continues to work with our partners in government and industry to identify ways to ensure the resilience of Canada's energy infrastructure. As well, the NEB has been working on implementing several internal and external initiatives to meet our accountabilities in regulating security.

In 2007 our security program hit the road. Our inspectors conducted six entirely security-focused inspections in 2007 with more on the agenda for 2008. The security program continues to evolve on schedule. In 2006, the NEB introduced a proposed regulatory change (PRC) 2006-01 which outlines our expectations for our regulated companies' security programs and our aim to work with the Canadian Standards Association (CSA) and security experts to draft a national security standard for the petroleum and natural gas industry in Canada. This standard is designed to address the prevention and management of security risks that could result in a negative impact on people, the environment, property, or economic stability. The NEB is chairing this CSA technical committee and will deliver a draft for public review in the summer of 2008.

Internally, security training was identified as a priority for the Board's inspection officers through the establishment of the Security Compliance Community. In the field, our inspectors have tested and refined a suite of tools developed for conducting comprehensive security inspections, screenings and assessments to ensure consistency in verifying that our regulated companies comply with the PRC-2006-01.

MONITORING COMPLIANCE

The NEB monitors activities undertaken by regulated companies from the initial design of facilities through to abandonment. This regulatory function assesses compliance with conditions attached to the original order, certificate or authorization, and ensures the company is designing, constructing, operating and abandoning its facilities in accordance with the applicable regulations under the NEB Act and the *Canada Oil & Gas Operations Act* (COGO Act). We also ensure companies are meeting the requirements under the *Canada Labour Code* Part II during our safety inspections.

In 2006, the NEB formulated five compliance communities within the Operations Business Unit in the areas of integrity management, safety management, environmental management, emergency management and security management. These communities are charged with a number of measurable tasks including the development and maintenance of a comprehensive, risk-based approach for planning compliance verification activities such as inspections, audits and meetings. In 2007, the NEB began measuring its internal performance against the ability to achieve planned results as identified within the risk-based plans developed by the communities. These internal communities give specialists from each discipline a chance to come together and evaluate the work from the point of view of their own subject matter. The communities also set goals, study trends and share their experience in order to maximize knowledge.







COMPLIANCE VERIFICATION

The NEB conducts compliance verification activities of its regulated pipelines and facilities throughout various stages of construction, operation and abandonment. Qualified and duly designated NEB Inspection Officers confirm compliance with legal requirements and other conditions of project approval. In addition to compliance activities carried out under the NEB Act and the COGO Act, several NEB Inspection Officers have also been designated as Health and Safety Officers by Human Resources and Social Development Canada who enforce the requirements of the *Canada Labour Code* Part II among NEB-regulated companies.

The NEB conducts various types of inspections and other on-site compliance activities. These not only provide valuable information related to the effectiveness of a company's programs and their implementation, but also serves to reinforce the working relationship between regulated companies and the NEB.

Safety inspections occur during construction and operation and monitor a company's compliance with

safety manuals, applicable occupational health and safety legislation, and industry best practices. The purpose of inspections under the *Canada Labour Code* is to ensure that the health and safety of persons working on NEB-regulated pipelines are protected.

Integrity inspections focus on the physical condition of a pipeline to ensure its safe operation. During construction, the emphasis is on the handling of the pipe, welding, non-destructive examination, coating and pressure testing. During operation, the emphasis is on a company's integrity management activities, such as cathodic protection surveys, in-line inspections and integrity digs.

Environmental inspections confirm the implementation of mitigation measures that are designed to minimize environmental effects resulting from the construction, operation, and abandonment of regulated facilities. On occasion, inspections are coordinated with federal and provincial partners, with a focus on construction practices where there is jurisdictional overlap, as in the case of fisheries resources and the protection of rare species.

Table 4: 2007 On-Site Compliance Verification Activities

In 2007, N	IEB staff members carried out:
17	Safety and integrity inspections
8	Environmental inspections
6	Post-construction environmental inspections
4	Pipeline crossings inspections
6	Security inspections
2	Inspections in response to landowner concerns
6	Inspections of operation and maintenance activities
3	On-site incident investigations
2	On-site participation in company emergency exercises
26	Compliance screening meetings
19	Workplace inspections under the Canada Labour Code
99	Total number of compliance verification activities in 2007

Crossings inspections verify compliance with the *Pipeline Crossing Regulations*, Parts I and II by both the pipeline companies and third parties who cross a pipeline. The purpose of crossings inspections is to ensure that companies have effective damage prevention programs and that they are actively working to promote awareness of safe excavation and construction activities in and around federally-regulated pipelines.

Security inspections verify that regulated companies have an adequate and effective security management program. These inspections allow the NEB to confirm that companies are implementing the appropriate measures to prevent and respond to the occurrence of malicious acts which have the potential to result in adverse effects on people, the environment, property or economic stability.

MANAGEMENT SYSTEM AUDITS

The NEB audits the management systems of NEB-regulated companies to evaluate compliance with the NEB and COGO Acts, the *Canada Labour Code* Part II, relevant regulations, and a company's own policies, practices and procedures. An audit typically includes evaluation of a company's design and construction,

pipeline integrity management program, emergency preparedness and response program, safety program and environmental protection program. The Board continued to update its management system audit program and improve planning processes, program implementation elements, performance measures and self-assessment procedures. The improvements were identified and prioritized through analysis of previous audits and an assessment of the Board's audit program policy, goals, objectives, processes and procedures. In 2007, the NEB conducted four new audits resulting in eight findings requiring corrective action by the company.

In follow-up to NEB audit reports, companies file a corrective action plan with the Board that addresses each finding. The corrective action plan must be completed and verified before a finding can be officially closed out or completed. To date, audited companies have completed corrective actions for 65 per cent of the findings associated with corrective action plans, and 97 per cent of completed corrective actions have been verified and closed by the Board. This indicates the audit program and follow-up procedure are supporting the Board's mandate for protecting the public, employees and the environment.

NEB COORDINATES RESPONSE TO PIPELINE OIL SPILL

In July 2007 the Board responded to an oil pipeline spill from an NEB-regulated pipeline operated by Kinder Morgan Canada in Burnaby, British Columbia. The underground 24-inch Trans Mountain pipeline was struck by a third-party contractor doing construction in the community. Burnaby is the third most populated urban centre in B.C. with an estimated population of 203 000.

Approximately 232 cubic metres (1 460 barrels) of heavy synthetic crude oil was released into a densely populated residential area. The incident and the emergency response made national headlines on Canadian TV and in national newspapers for several days.

The NEB arrived at the scene the same day the incident occurred and coordinated the regulatory response with other federal, provincial and municipal agencies. The NEB and BC Ministry of Environment joined the Unified Command established by Kinder Morgan Canada to manage the response to the incident. An NEB environmental specialist joined the Regional Environmental Emergency Unit and the Environment Unit which addresses environmental issues and makes recommendations to the Unified Command. The Environmental Unit included representatives from federal,

provincial and municipal agencies, Kinder Morgan Canada, First Nations and independent consultants.

As a member of the Unified Command, the NEB's role was to provide advice and oversee both the emergency response and the reclamation activities that followed. The Board also provided a one window approach to facilitate the collaboration between the many agencies and groups, including First Nations, involved in the emergency and reclamation phases. This strategy allowed the company to focus on the actual clean-up and reclamation activities. The safety of the public, including workers and local residents, and protecting the environment remained our top priorities.

The emergency phase, 24 July to 9 August, was followed by reclamation activities and long term monitoring. NEB inspectors have visited the site and will continue to monitor Kinder Morgan Canada's efforts to complete the clean-up and reclamation of the neighbourhood and environment. The NEB also organised and managed a 3-day post-incident debrief session with all major participants in this emergency. At year end, the TSB continued to lead the investigation into the incident, supported by the NEB.

FINANCIAL AUDITS

As part of fulfilling its legislated mandate, the Board periodically conducts financial regulatory audits of the pipeline companies it regulates. In these audits, the Board verifies whether NEB-regulated pipelines comply with the *National Energy Board Act*, its regulations, decisions and orders. By way of these audits, the Board also maintains up-to-date knowledge of the companies it regulates, including their regard for economy and efficiency.

In 2007, the Board completed an audit of Centra Transmission Holdings Inc. (Centra) and as of the end of 2007, had three additional audits underway. In its audit of Centra, the Board found that Centra's nomination and related procedures were outdated and not the same as outlined in their tariff filed with the NEB. To address this finding, Centra agreed to undertake, in consultation with its shippers, a comprehensive review of its tariff

and to file a revised tariff with the Board that reflects current business practices. The Board also identified an opportunity for Centra to improve its internal control over wire transfers, a recommendation that Centra adopted.

NON-ACCORD CANADA LANDS

On Canada's non-accord, or frontier, lands (lands not subject to a federal/provincial shared management agreement), conservation and safety officers inspected geophysical and drilling programs and production operations of companies to confirm compliance with NEB-approved program and relevant regulations. Occupational safety and health matters were also considered during these inspections. In 2007, conservation and safety officers conducted 12 inspections of activities and facilities on non-accord lands. Eleven assurances of voluntary compliance were issued under the *Canada Labour Code* Part II and

PROMOTING SECURITY AWARENESS, PLANNING AND RESPONSE

In April 2007, NEB security management specialists participated in an exercise based on a simulated threat to Canadian oil industry facilities in the North. NARWHAL 07 in Norman Wells, Northwest Territories provided an opportunity for northern and federal agencies to practice security and safety responses in collaboration with two private sector companies. During the exercise, Canadian Forces troops and aircraft assisted the RCMP and northern civilian agencies in their response to a simulated threat that tested the security programs of two private sector companies regulated by the Board.

In addition to gaining practical knowledge from the endeavour, participants learned how to work together and develop relationships that will facilitate future communications, planning and responses to real emergencies or threats to Canada's energy infrastructure.

Increasing awareness of security issues among employees, regulated companies and other stakeholders is one of five key principles identified in the Board's security management program. As well, the NEB will:

- Develop efficient information-sharing and informationprotection processes among government and private sector partners;
- Pursue an integrated risk management approach for regulatory oversight that includes activities such as prevention, mitigation, response, recovery and restoration; and,
- Apply a life cycle approach that expands security management expertise from operations to other NEB business units where appropriate.



17 non-compliance directions were issued under the *Canada Oil and Gas Operations Act*. Compliance was received to the satisfaction of the conservation and safety officers either while still on-site or within an agreed upon period.

ENVIRONMENTAL CONDITIONS

The NEB monitors company compliance with conditions on Board orders or certificates, as well as other commitments made by a company in its application or other programs, such as its environmental protection program, mitigation measures or monitoring commitments. By issuing conditions to be adhered to throughout the project, the NEB is able to monitor the project from one stage to the next throughout the project life cycle. The NEB monitors compliance by conducting inspections and holding meetings with companies, as well as by conducting audits to ensure that commitments are achieving their desired outcomes.

PIPELINE OPERATION AND MAINTENANCE ACTIVITIES

Since 2005, the NEB has employed a risk-based approach for inspecting selected pipeline operation and maintenance activities. This risk-based approach clarifies and streamlines regulatory oversight of activities integral to the operation of approved facilities, allowing the Board and regulated companies to focus resources on higher risk activities.

In 2007, the Board received 49 notifications of operations and maintenance activities, of which six were inspected by NEB inspection officers.

INCIDENTS AND EMERGENCIES Emergency Management

The NEB's primary role during an emergency is to monitor the company's response and ensure that all reasonable actions are taken to protect employees, the public and the environment. The NEB also verifies that regulated companies have adequate and effective emergency management programs that mitigate the impacts associated with an emergency situation.

Regulated companies are required to provide up-to-date versions of their emergency response plans to the NEB for review. The NEB also maintains a manned emergency response contact phone and call down system which operates 24/7, 365 days a year. In 2007, NEB personnel responded to three on-site incidents.

The NEB encourages and participates in tabletop and full-scale emergency response exercises sponsored by pipeline companies. In 2007, the Board participated in Operation NARWHAL 2007 in the Northwest Territories and three NEB-regulated company exercises.

Incidents

NEB-regulated companies are required to report incidents to both the NEB and the Transportation Safety Board (TSB). Under an agreement between the two agencies, all pipeline incidents are reported to the TSB by the company as soon as practicable. The TSB then immediately notifies the NEB. The NEB and the TSB work cooperatively in investigating pipeline incidents.

Incident reports provide the NEB with the information necessary to determine the appropriateness of the companies' response to events which could have adverse effects on people, security of pipelines, and the environment. In addition, reporting provides the NEB with the opportunity to investigate, or, when appropriate, initiate an emergency response. When an investigation determines that corrective actions are required, the Board ensures they are taken, either by the company individually or by the industry as a whole.

The NEB defines incidents as:

- the death or serious injury of a person;
- a significant adverse effect on the environment;
- an unintended fire or explosion;
- the unintended or uncontained release of low vapour pressure hydrocarbons in excess of 1 500 litres;
- the unintended or uncontrolled release of gas or high vapour pressure hydrocarbons;
- the operation of a pipeline beyond its design limits as determined under CSA Z662, CSA Z276 or any operating limits imposed by the Board; and
- within a processing plant, any occurrence that results in or could result in a significant adverse effect on property, the environment or the safety of people.

In 2007, 56 incidents met NEB reporting requirements compared with 55 incidents in 2006 and 50 in 2005. Of these, three incidents resulted in on-site investigations by NEB staff members.

- On 15 April 2007, a pipeline rupture near Glenavon, Saskatchewan resulted in the release of approximately 990 cubic metres (6 230 barrels) of oil. The NEB has since conducted three separate inspections of the incident site and has confirmed that all contaminated soil has been removed. Remediation activities were complete as of the end of October 2007. The TSB is the lead investigator of this incident and the NEB continues to collaborate with them on this investigation.
- On 24 July 2007, a pipeline within the City of Burnaby, British Columbia, was struck by a backhoe releasing approximately 232 cubic metres (1 460 barrels) of crude oil in a densely populated area. The TSB is leading the incident investigation to determine the cause and contributing factors.
- On 22 October 2007, during a pipeline construction project in Jasper National Park, a contractor employee was struck by a side boom and suffered a compound fracture of his right leg which was eventually amputated above the knee. Alberta Workplace Health and Safety is leading the investigation because the injury was sustained by a contractor employee. The NEB is assisting and continues to conduct safety inspections on this project.

The NEB's response to hydrocarbon spills includes follow-up compliance verification activities to confirm that site remediation is carried out. The NEB is currently working to formalize this process. Tools are being developed to enable the NEB to more consistently and efficiently track and manage spill site remediation files. A summary of the reportable gaseous and liquid releases that occurred in 2007 can be found in Table 5.

On non-accord frontier lands, there were 22 reportable spills in 2007 compared to 21 in 2006. Twenty-one of the 2007 spills were non-hydrocarbon releases such as drilling fluid and waste water. All spills were contained and cleaned up.

TECHNICAL EXPERTISE

In 2006, the Board was instrumental in forming a new standards technical committee under the authority of the Canadian Standards Association. The committee has worked efficiently to develop a consensus standard for security management programs within the oil and gas industry in Canada. Its planned publication date is July 2009.

Relevant Canadian standards are incorporated by reference into NEB regulations. As a result, Board staff members have been actively engaged in committee work in support of the CSA Z662 Standard on Oil and Gas Pipelines, CSA Z276 Standard on Liquefied Natural Gas, CSA B51 Standard on Pressure Equipment, and ISO/TC 67 (materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries). Both the Z662 and Z276 standards were extensively revised and reissued in July 2007. Board staff members assisted with the French translation of both standards so they could be referenced by Standards Council of Canada as national standards.

The NEB continues to host foreign delegations and provide overviews of the Canadian regulatory framework. In 2007, the NEB hosted delegations from Thailand, Peru and Norway.

Table 5: Gaseous and Liquid Releases Reported in 2006 and 2007

Incident	Number of Occurrences in 2006	Number of Occurrences in 2007
Natural gas releases of any volume, sweet or sour	19	24
Low vapour pressure liquid hydrocarbon spills greater than 1 500 litres (all crude oil)	7	9
High vapour pressure liquid hydrocarbon releases such as natural gas liquids or propane	3	0
Releases of liquid sulphur, smaller volumes of low vapour pressure liquid hydrocarbons (diesel, gasoline and crude oil), amines, and other fluids used in and around facilities and gas processing plants.	11	4

The Board believes it is important to share its expertise nationally and internationally. During the past two years, NEB staff members have made presentations at or actively participated in the organization of major industry events including the International Pipeline Conference, the International Association for Impact Assessment, Northern Oil and Gas Best Practices, the Banff Pipeline Workshop, the United Nations Economic Commission for Europe Forum on Pipeline Accidents, the Rio Pipeline Conference, and the CSA Z662 Biennial Forum. Board staff members also contributed published papers to the Journal of Pipeline Integrity and chapters to the companion volume to the ASME Boiler and Pressure Vessel code. The National Energy Board is also a member of the United Nations Ad Hoc Group of Experts, providing advice and expertise in the effort to establish global standards and definitions for petroleum and mineral reserves. NEB staff members participated in organizing and worked on technical committees charged with planning the International Pipeline Conference held in Rio de Janeiro in October 2007 and the CANMET Banff Pipeline Workshop held in April 2007. Our employees also hold executive positions within the American Society of Mechanical Engineers Pipeline Systems Division and the International Petroleum Technology Institute – international non-profit organizations dedicated to promoting advances in pipeline technology throughout the world.

RESEARCH AND DEVELOPMENT

Research and development in the pipeline industry is international in nature. The Board actively monitors research and development by participating in organizations such as Natural Resource Canada's Panel on Energy Research and Development and the Materials Technical Advisory Committee of the CANMET Technology Centre in Ottawa, and through interaction with the U.S. Pipeline and Hazardous Materials Safety Administration.

The Environmental Studies Research Fund provides funding for environmental and social projects pertaining to petroleum exploration, development and production activities on non-accord Canada lands. The NEB provides technical and administrative resources for the group's management board, which includes members of industry, the government and the public. The Fund is chaired by Robert Steedman, who is part of the Board's Executive Team. In 2007, the management board approved nine new studies, continued to provide funding to others that were previously approved, and participated in updating the CSA S471 Standard for Offshore Structures.



BUILDING SECURITY MANAGEMENT PARTNERSHIPS

In 2006 the NEB and the Alberta Energy and Utilities Board (now the Energy Resources Conservation Board) signed a Memorandum of Understanding to facilitate coordination and cooperation among the two agencies. The agreement was the first of its kind in Canada and has been recognized by the other provinces as a potential tool for implementing effective security management. In 2007, the Board has been in discussions with Transport Canada, the provinces of New Brunswick, British Columbia, and Québec to see if similar agreements would be beneficial for the oversight of security management in the energy industry.

Building on the success of the Alberta Energy and Utilities Board / NEB Memorandum of Understanding, the NEB signed an Memorandum of Understanding with the B.C. Oil and Gas Commission on 17 December, 2007 that will allow the two regulatory agencies to work more cooperatively on security-related matters. The NEB also engaged in talks with other respective jurisdictions, such as New Brunswick's Public Safety, Security and Emergencies Directorate, and the Québec Ministry of Public Safety with the goal of developing similar agreements to more effectively manage security-related matters.

In the future, the Board will continue to promote security awareness in the energy sector and leverage relationships with its provincial and federal partners, international counterparts and the industry to ensure that energy infrastructure protection is managed responsibly and in the interest of all Canadians.

As part of increasing our knowledge, NEB employees participated in a security-related exercise in Northern Canada. Operation NARWHAL 07 was one of the largest northern military exercises ever conducted by the Canadian Forces. The exercise was orchestrated to test the response to various scenarios in the Arctic, including a security threat to NEB-regulated energy infrastructure.





hroughout its history, the NEB has provided opportunities for the public to participate in the regulatory decision-making process. In recent years, the NEB has expanded the scope of these opportunities to include broad consultation on new processes, an increased number of meetings and hearings in affected communities, and a wider range of tools for the public to access information about the Board's processes. Effective citizen engagement requires a commitment by all stakeholders for open, honest and transparent communication. Parties affected by proposed projects have much at stake and in order to make decisions in the public interest, it is critical that the NEB ensures appropriate public engagement. Simplified processes, information sessions, Internet-accessible regulatory documents and Appropriate Dispute Resolution are among the methods being used by the Board to support its goal of effective public engagement.

NORTHERN AND ABORIGINAL ENGAGEMENT: SEEKING TO UNDERSTAND

In 2007, NEB staff visited four northern communities – Inuvik, Tuktoyaktuk, Colville Lake and Fort Liard – as a continuation of the Northern Engagement Research Project initiated in 2006.

The goal of the project was to assess whether or not the people living in these communities had an appropriate understanding of the NEB's role in northern energy development and regulatory processes. However, when staff returned to Calgary, they reported much richer insights. Interactions with diverse community groups, including trappers, Métis and First Nations Elders, opened doors to increased dialogue, understanding and a sense of connection between the NEB and people living in these communities.

"They commented that they were surprised and glad to be approached informally, just for discussion," says Karla Reesor, Technical Leader of Engagement and Appropriate Dispute Resolution. "These visits were designed to be community-focused, outside of the usual intergovernmental discussions."

The NEB's approach gave people time to talk and ask questions outside of the rigors of a formal hearing and to exchange understanding in an open, community-focused way. NEB staff created community profiles that identified local needs, increased NEB capacity to understand those needs, and provided the communities with a deeper understanding of the Board's role in the North. This enhanced awareness will inform future engagement work.

The Northern Engagement Research project is a highlight of the NEB's goal to be proactive in developing relationships with Métis. First Nations, and all communities affected by our national energy infrastructure.

LISTENING AND RESPONDING: LANDOWNER COMPLAINTS

Energy companies regulated by the NEB are expected to involve people potentially affected by their activities in project development discussions throughout the construction and operation phases of their facilities. While the Board expects companies to respond to complaints received from landowners or the public, its staff can provide assistance by helping facilitate interest-based approaches to resolving complaints through the Landowner Complaint Resolution Program.

In 2007, the Board received 18 landowner complaints. Unresolved reclamation issues, such as concerns about noxious weeds on pipeline right-of-ways, comprised one of two main complaints categories; the other concerned landowner rights such as access to property, company notification and the negotiation of agreements. More than 85 per cent of these complaints were resolved.

If an issue is complex, or primarily related to safety and environmental concerns, the NEB often conducts a field inspection and usually facilitates a face-to-face meeting with the parties involved. If the parties are amenable, a facilitator will initiate the dispute resolution process and NEB safety or environment inspectors may provide technical advice to help the parties reach a resolution. In the event that the parties still cannot reach an agreement, the matter will be referred to the Board for a decision.

WHY ARE PEOPLE SMOKING A PIPE?

Recent hearings attended by the Elders of the Standing Buffalo Dakota First Nation in Saskatchewan were kicked off with a traditional pipe ceremony. The NEB believes in the importance of being proactive in reaching out to Aboriginal communities who may be affected by energy infrastructure development. Respecting the traditions of Aboriginal communities during information sessions and hearings is a big part of how the NEB is continually improving its outreach process.

"This ceremony is one where everyone is equal, everyone participates. It is the equivalent of a 'swearing-in', because the focus of the ceremony is about respect, truthfulness and ensuring all present receive blessings," explains NEB Socio-Economic Specialist Carla Osborne. "Participation in these traditions helps put community members at ease. They know that we are listening to them, and they are more open to listening to us."

USING AN INTEREST-BASED APPROACH

The Board believes that resolving concerns early in the regulatory process is in everyone's best interest. The NEB uses a range of interest-based approaches to fulfill its regulatory mandate. These alternative methods enable the NEB and its stakeholders to discuss needs, reach understanding and develop more comprehensive regulations.

For applications and processes within the NEB's control, the Board encourages the use of interest-based processes prior to relying on formal, adjudicative practices. This approach results in more efficient outcomes, reduced cycle times and lower costs. At the same time, there are instances where a hearing is the most effective and appropriate approach.

NON-HEARING APPLICATION NOTICES

The NEB is committed to continually improving its regulatory processes to ensure that its decisions are made in the public interest and in a manner that respects the rights of those affected.

In 2007, staff members assessed existing applications processes and proposed changes to the NEB Filing Manual to ensure that these processes, particularly for applications that do not automatically trigger a public hearing, are fair and inclusive. These changes require applicants to demonstrate that adequate notice has been provided to all potentially affected persons regarding:

- their intention to make an application to the NEB; and,
- how interested parties can raise outstanding application-related concerns with the NEB in a timely manner so their concerns can be considered in the NEB's decision on the application.

Regulated companies have long been required to notify individuals who could be affected by NEB applications that trigger public hearings. The recent changes to the Filing Manual mean that companies are now responsible for fulfilling similar expectations for applications that may not involve a public hearing.

The NEB expects these changes to provide greater clarity and assurance that its regulated companies are adequately informing people of potential applications that could affect them, and that interested people have a reasonable opportunity to be heard by the NEB before a decision is made that impacts them.

PRE- AND POST-HEARING ENGAGEMENT

The Board actively pursues its goal of effective public engagement to help fulfill its mandate. This is accomplished through a series of engagement strategies designed to meet stakeholders' needs for information before, during, and after a formal hearing process. The Board's Appropriate Dispute Resolution (ADR) program helps foster better relationships among various groups affected by the Board's work by facilitating interest-based approaches throughout the entire life cycle of a project, from pre-application, through the application process, and continuing on throughout a project's operation. The ADR program helps all parties better understand the issues under discussion, and designs a framework to help parties resolve disputes.

Before an application is even filed, the NEB works with companies and affected communities to ensure that issues which may arise during the hearing process are raised, addressed, and potentially even resolved, before the hearing takes place. Pre-hearing engagement work is supplemented as needed by information sessions that provide an opportunity for people to learn about the NEB's role throughout the life cycle of a project, and to obtain specific information about the hearing process. Pre-hearing planning conferences are also sometimes used to obtain public input into the process.

During a hearing, members of the public may participate by becoming an intervenor in the hearing, joining others with common interests to submit a joint intervention, or joining a non-governmental organization. Interested parties can also submit a letter of comment or, where permitted, make an oral statement during the oral portion of a public hearing.

The Board regulates the entire life span, or life cycle, of approved projects to ensure that conditions applied to a project are met, stakeholders' concerns are addressed, and the facility is operated safely and responsibly. To reinforce the Board's commitment to overseeing its regulated facilities from construction to abandonment, staff members increasingly use post-hearing engagement activities.

For example, public interest in the Emera Brunswick Pipeline project in Saint John, New Brunswick has

TYPES OF INTEREST-BASED APPROACHES

- Appropriate Dispute Resolution (negotiation, mediation, workshops to increase understanding)
- Negotiated settlements (market participants make their own decisions instead of imposing the judgments and decisions of the regulatory agency)
- Collaborative regulatory development between industry and other stakeholders, including landowners, Aboriginal and environmental groups and different levels of government

been consistently high, even after the decision was made in May 2007 to approve the project. NEB staff identified a need for more communication of the Board's involvement in projects, including the ways in which the NEB works with companies to promote safety, comprehensive emergency planning, responsible environmental management and ensure other important public concerns are addressed throughout the life cycle of a project. In response, the Board has developed several new engagement methods, including a special section on the NEB website that will keep stakeholders informed about regulatory developments on the project, emergency awareness issues, and media outreach strategies. Engagement and communication staff members will continue to play an active role on the Board's Emera Brunswick Pipeline project working group.

WEBSITE RENEWAL

In 2007 the NEB completed a year-long website renewal project, after gathering user feedback about navigation and the look and feel of the site. The revised website reflects the new Government Online and Common Look and Feel standards as set by the Treasury Board, and its design makes the site more intuitive and easy to use.

Along with the re-design, the communications team has led the way in introducing new front page stories that keep stakeholders and casual visitors up-to-date on NEB activities and initiatives. Other new content includes quick links to major NEB hearings and our in-depth *Canada's Energy Future* report, released late in 2007.

INFORMING CANADIANS ABOUT ENERGY

The Board provides energy market information through energy market assessments, statistical reporting and consultation with other organizations. All of this material is available to Canadians through the NEB website.

POST-HEARING SURVEYS

The Board believes that one of the best ways to measure how well we perform in the Canadian public interest is to ask stakeholders for feedback. Following a hearing, the Board issues a survey to all registered participants in order to gather feedback on the hearing process. In 2007, five such surveys were issued, with a majority of respondents agreeing with the statement "Overall, I was satisfied with the NEB."

NEW LAND MATTERS CONSULTATION INITIATIVE – A FORUM FOR DIALOGUE

As part of its review of certain issues related to land matters, the NEB established the Land Matters Consultation Initiative (LMCI). While details are still evolving since the program was announced in October 2007, the goal of the LMCI is to provide a forum for interested parties and the Board to engage in dialogue and develop options that support the long-term responsible development of the energy sector while respecting the rights of those affected by development or operations. Activities designed to achieve this goal will involve gathering feedback from landowners and interested groups through workshops and meetings, releasing discussion papers and a public hearing into the financial aspects of pipeline abandonment.

The LMCI will address issues that arise throughout the life cycle of facilities, including the planning, application, construction, operation and abandonment phases.

Topics for review include:

- Landowner consultation programs
- Acquiring access to right of ways
- Vehicle crossings of the right of way
- Pipeline abandonment
- Improving accessibility of NEB processes

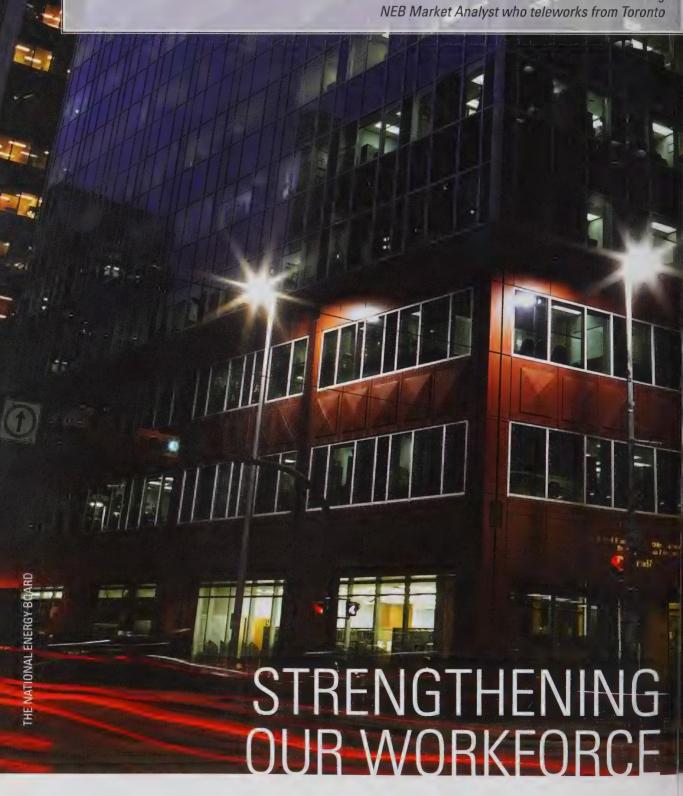
During 2008, the Board will work closely with a broad range of stakeholders to consider these land-related matters.





"I have developed very good contacts from the Ontario Ministry of Energy, the Canadian Petroleum Products Institute, Petro-Canada and Trans Northern Pipeline. This has allowed me to be plugged into events that impact the Ontario and Quebec petroleum products market (gasoline and diesel) and at the same time promote the Board's work."

- Colette Craig





he Board is committed to demonstrating excellence in all aspects of its work and recognizes the importance of investing in the people, processes and systems needed to continuously improve results and fulfill our mandate.

OUR COMMITMENT TO CAREER DEVELOPMENT, COMPENSATION AND BENEFITS

The NEB strives to maintain a competent, well-trained professional workforce by ensuring that learning opportunities are available to all staff members.

The Board is inspired by the vision of a strategically-managed, high performance organization where the right people are available to do the right things at the right time. Recognizing that organizational performance is directly linked to the technical excellence and flexibility of our workforce, we have developed an annual performance assessment process that links individual performance to the Board's business priorities. Over the past year, a performance pay pilot project was introduced so that individual performance could be recognized and rewarded.

During 2007, the NEB further defined a framework for supporting the acquisition of knowledge, skills, and experience that will enable employees to advance their individual career objectives while contributing to the Board's work. The NEB supports career growth through development plans, coaching and other learning opportunities available to all staff. These opportunities may be focused on attaining current job expectations or stretch goals, and are part of a larger succession planning strategy. Last year, NEB employees spent approximately 14 000 hours in learning events, including attending conferences, formal education, courses of study and on-the-job training. In April 2007, the Board launched its Technical Excellence Project. The objective of this project is to promote timely and quality knowledge transfer and skills development. To date, nearly 200 NEB staff have received training in a range of technical and legislative competencies.

In particular, the NEB's leadership development program focused on developing management and leadership skills. By participating in this program, leaders and potential leaders sharpen their skills through hands-on training programs offered in-house and through organizations such as the acclaimed Banff Centre. The in-house program provides the government-specific knowledge required for managing finances, procurement, human resources and government information; the Banff Leadership courses support the growth of strategic, personal, and team leadership skills.

In 2007, the Board launched a new training strategy and offered three customized training courses. Seventy-two employees participated in the course best suited to their role and level of experience. The Board also provided coaching and support to project managers and drafted a standard for defining the skills and competencies required of project managers.

Our Awards and Recognition program, which culminates in an annual ceremony, salutes employee efforts and successes throughout the year. This program features a range of formal and informal measures for collectively expressing and reinforcing NEB values and the way that people work effectively together.

CONTRIBUTING TO THE COMMUNITY

The NEB continues to be actively involved in supporting our community. In 2007, NEB management made a commitment to building a culture of giving. The Board encouraged employees to take part in the United Way Day of Caring program during working hours by matching employee time off with paid leave. Throughout the year, employees contributed their time and talent to a wide range of initiatives, including:

THE BENEFITS OF TELEWORK

The National Energy Board provides a flexible work environment for its employees. In an effort to retain staff in the competitive Calgary labour market, several employees telework from different regions of the country. The benefits of a telework policy include retention of experienced employees who thrive on the challenging work of the Board, as well as the ability of those individuals to network with other stakeholders, including provincial governments, associations, pipeline companies and the oil and gas industry, in different parts of Canada.

RESPONDING TO A TIGHT LABOUR MARKET

In 2007, the tight job market across Alberta, as well as skill shortages and corresponding hikes in wages and benefits, continued to affect our ability to be competitive with other employers. In addition, the high cost of housing affected our ability to attract experienced workers to Calgary where the NEB is located. Changing demographics and the need to work within a highly legislated environment have presented challenges to our recruitment efforts.

During 2007, the NEB obtained additional funds from the Treasury Board to hire more skilled staff to deal with increasing workloads and invest in succession planning. The Board continues to emphasize interesting work in the national public interest, work/life balance, and flexible work arrangements as part of our attraction and retention incentives.

- raising more than \$60,000 to support the annual United Way/Health Partners campaign. The NEB earned the prestigious Award of Excellence – Public at the United Way of Calgary and Area's annual Spirits of Gold award ceremony.
- volunteering in our community through the United Way Day of Caring program by:
 - stuffing gift boxes for Operation Christmas Child,
 - decorating the Mustard Seed homeless shelter,
 - helping out with donations and volunteers at the Calgary Interfaith Food Bank; and
- swinging hammers for Habitat for Humanity on three building days,
- donating winter clothing to support the Calgary Urban Project Society.

KEY CORPORATE INITIATIVES

Throughout 2007, the Board continued to implement its Quality Management System as a framework for:

- effective, efficient execution of Board processes;
- ensuring stakeholder needs are met;
- enabling process consistency where required, and flexibility where possible; and,
- encouraging continuous improvement.

By April, the Board had exceeded its target of 60 per cent completion on the 'QMS Maturity' index, using the ISO 9001:2000 Quality Management Systems – Requirement as a guide.

The QMS is now firmly ingrained in the NEB's culture and is accepted as the way we work. All new employees receive QMS orientation so they are equipped to use the 500-plus documents that describe the Board's 70 business processes and sub-processes. In 2007 alone, staff recorded 363 improvement suggestions, many of them implemented, on how to make our products and processes even better.

The Board's Information Management Renewal project establishes the tools, training, techniques and practices that will respond to the information management needs of the NEB and the Government of Canada. As part of this project, the Government of Canada Information

Management standard toolset known as the Record and Document Information Management System, or RDIMS, is being implemented. Consultations with key staff members and NEB business units have been completed to ensure business alignment with the work to date. The Board's file plan has been reviewed and updated to meet Library and Archives Canada guidelines. The Information Management Renewal project will streamline information handling at the Board, and preserve information of enduring value to Canadians. During the first quarter of 2008, all Board staff will receive Information Management and RDIMS application training, enabling staff to share in and contribute to a managed corporate information repository.

NEB AS A SEPARATE EMPLOYER

The NEB has been a separate employer since December 1992. As a Public Service separate employer, the authority to carry out certain human resource management functions has been transferred from the Treasury Board to the Chair of the NEB. With the transfer of authority comes the responsibility for creating and maintaining an NEB classification system, human resource management policies and practices, and undertaking collective bargaining to establish terms and conditions of employment.

Although a separate employer, the NEB continues to be bound by federal legislation. The Board is governed by the terms of the *Public Service Employment Act* in respect to promotion, retention and recruitment practices. Employee–employer relations are subject to the *Public Service Labour Relations Act*. In addition, the NEB is subject to the employment philosophy of the broader public service, including public service compensation packages. Financial matters are governed by the *Financial Administration Act* as administered by the Treasury Board Secretariat. Furthermore, the NEB is bound by the provisions and standards set out in the *Official Languages Act* and the *Employment Equity Act*.

For the most part, NEB employment practices are governed by legislation within the purview of the Public Service Commission while many of the compensation and benefit practices fall under the auspices of the Treasury Board Secretariat. The NEB is further impacted by being located solely in Calgary where a highly competitive labour market, low unemployment rate, and high living costs reduce the available pool of qualified resources, especially when recruiting from the broader federal public service.

NEB LIBRARY – A KEY INFORMATION SOURCE AND RESOURCE

The NEB library provides services to both NEB employees and the public. The range of services provided to the public includes consultation regarding regulatory documents, providing copies of NEB publications, and offering referrals to internal and external sources of information. The public can borrow material through an inter-library loan service.

The Library's Collection

The main collection consists of statutes, federal regulations, decision-related documents from other jurisdictions, books, annual reports, studies, reports, speeches and standards. The remainder of the library collection consists of directories, dictionaries, encyclopedias and industry-related indexes in the reference collection, as well as journals and newspapers.

Half of the library's collection is directly related to NEB hearings. This includes company applications and related submissions, filings from interested parties, hearing transcripts, and Reasons for Decision. Company applications and related submissions include a variety of information.

In 2007, the NEB Library responded to 1 748 requests from the public.

FINANCIAL HIGHLIGHTS

Each year, the NEB sets out its plans and planned spending for the coming year in a document entitled *Estimates Part III – Report on Plans and Priorities* which is tabled in Parliament. At the end of the fiscal year, March 31, the NEB reports its results in a document known as the *Departmental Performance Report*. This document is also tabled in Parliament and forms part of the NEB's accountability to the public.

These documents may be accessed at the Treasury Board's website www.tbs-sct.gc.ca.

The financial information in these reports is prepared in accordance with Treasury Board of Canada accounting standards which are based on Canadian generally accepted accounting principles.

Approximately 90 per cent of the NEB's costs are recovered from the companies it regulates. All monies collected from cost recovery are paid into the government's Consolidated Revenue Fund. Cost recovery

"The NEB has the country's best specialized energy library: it's a wonderful resource, the staff is knowledgeable and extraordinarily helpful and the long opening hours are appreciated."

- Energy Regulatory Consultant

is based on a calendar year cycle and corresponding financial statements are prepared for reporting on NEB operations. The *National Energy Board Cost Recovery Regulations* set out which costs the NEB may recover and the manner in which money is recovered.

Regulated companies are grouped by size according to definitions set out in the regulations. Small and intermediate companies pay fixed levies. Large companies pay levies that vary according to the total amount of spending by the NEB, the amount of recoverable costs allocated to each of the three commodity groups (natural gas, crude oil and electricity) and the level of activity reported by each regulated company.

The financial statements prepared for cost recovery purposes are audited annually. These statements may be viewed online by visiting www.neb-one.gc.ca, clicking on the tab labeled Reports and then clicking on the link to Auditor's Reports and NEB Financial Statements. Cost recovered companies can discuss the NEB's activities and expenditures by attending meetings of the Cost Recovery Liaison Committee. This committee meets two to four times annually and serves as a forum in which the NEB provides accountability reports and industry representatives may voice questions, make comments and offer ideas on NEB operations.

The Canadian energy sector has been very active, placing a high demand on the NEB in its regulatory role. As a consequence, the NEB has experienced a significant increase in its costs. In order to continue effectively meeting its mandate, it was necessary for the NEB to seek additional financial resources. Accordingly, the NEB made a submission to Treasury Board and, on 18 September, 2007, received approval for an additional \$25.5 million to be provided over the next three years. This funding will enable the NEB to meet the higher cost of its operations. As noted above, these expenditures will be eligible for recovery under the NEB's *Cost Recovery Regulations*.

In 2007, a business plan was created as a way to provide resource allocation and a method of tracking to each team and business unit in order to support the NEB in delivering upon its mandate and strategic plan. This year, the business plan became a dynamic document that served as an effective tool for managing resources. This was facilitated by having most activities identified in the business plan linked to our financial accounting system.

TREASURY BOARD SUBMISSION

At the end of the last fiscal year in April 2007, the NEB pursued additional personnel and monetary resources through a Treasury Board submission. With extremely tight timelines and the added constraint of a minority government, the submission was finalized and presented to Treasury Board on 18 September 2007. The submission was of such a high standard that it was approved as presented, with no conditions attached.

The success of this submission is directly attributable to the efforts and dedication of the working group, who were one of the recipients of the Chair's Award.

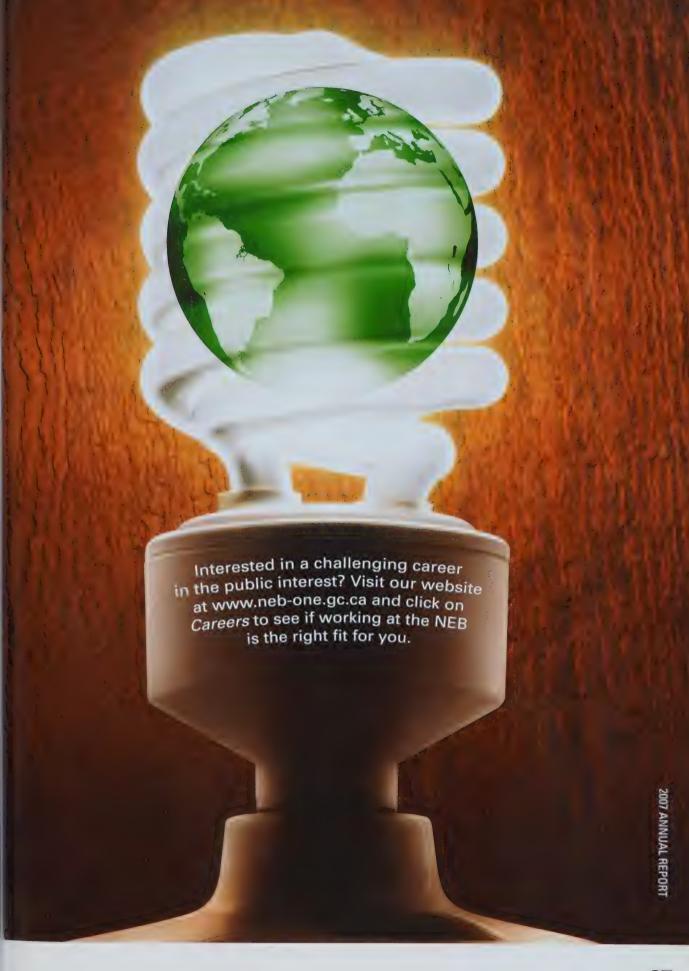
OPINION SURVEY FINDINGS

In response to results of the 2005 government-wide employee opinion survey, an employee advisory group made 25 key recommendations related to workplace enhancements, relationships and communications.

In 2007, the NEB executive team acted on many of the recommendations and posted an action log on our intranet. The log records specific activities and initiatives implemented to address priority items such as:

- revitalizing the NEB values;
- expanding Executive Team communications;
- enhancing our performance management program (RESULTS) and training programs;
- developing plans to implement change management training for leaders and employees; and
- launching an employee classification review.

A "mini" Employee Opinion Survey is planned for 2008 to measure progress of these and other ongoing initiatives.







CHAIR AND CEO

GAÉTAN CARON

Originally from Québec City, Mr. Caron obtained his Bachelor of Rural Engineering degree from Laval University and his Master of Business Administration degree from the University of Ottawa.

Mr. Caron joined the NEB in 1979, where he has held several positions. Prior to his appointment as a Board Member in 2003, he held the position of Chief Operating Officer. He was designated Vice-Chair in 2005 and Chair in 2007.

Mr. Caron is the Chair of the Canadian Association of Members of Public Utilities Tribunals (CAMPUT) and a member of the Association of Professional Executives of the Public Service of Canada, the Québec Order of Engineers and the Board of Directors of the Calgary and Area United Way.

VICE-CHAIR

SHEILA LEGGETT

Ms. Leggett has a Bachelor's degree in Biology from McGill University and a Master's degree in Biology from the University of Calgary. She has regulatory experience as well as a background in environmental issues.

Recently, Ms. Leggett was a Board Member with the Alberta Natural Resources Conservation Board (NRCB) which conducts hearings into natural resource development projects. She also served as Director of Operations for the NRCB. Prior to working with the NRCB, Ms. Leggett was a vice-president and senior consultant with an environmental consulting firm. She also has experience as a project biologist and advisor focusing on reclamation programs.

Ms. Leggett has published numerous papers and made presentations at conferences across Canada.

MEMBERS

ROWLAND HARRISON, Q.C.

Originally from Australia, Mr. Harrison has a Master of Laws degree from the University of Alberta and is a member of the bars of Nova Scotia and Alberta. He has gained extensive advisory, consulting and research experience in various aspects of energy regulation and policy during his career.

As a Professor of Law at various Canadian universities, Mr. Harrison taught Oil and Gas Law, Advanced Petroleum Law, Constitutional Law and Administrative Law. He has held senior management positions with a number of organizations including Canada Oil and Gas Lands Administration, the Canadian Institute of Resources Law, the Institute for Research on Public Policy and the Dalhousie Institute of Environmental Studies. Before his appointment to the Board, he was a partner in the Calgary office of Stikeman Elliott, a national and international Canadian law firm.

JOHN S. BULGER

Originally from Manitoba, Dr. Bulger has a PhD in Physical Chemistry from York University in Toronto, as well as a Graduate Management Diploma from McGill University in Montreal. He has experience in procurement, operations, planning, regulatory affairs and providing advice on energy issues.

Prior to being appointed to the Board, he held the position of Senior Manager, Regulatory Affairs at Maritimes and Northeast Pipeline in Halifax, Nova Scotia. He also spent almost 20 years at Gaz Métropolitain in Montreal, Québec in various senior management positions. He began his career at DuPont of Canada Ltd. Dr. Bulger is a member of the Chemical Institute of Canada.

KENNETH BATEMAN

Mr. Bateman holds a Bachelor of Law degree from the University of Alberta and a Master in International Business Management degree from the American Graduate School of International Management. He is a member of the Alberta Law Society, the Canadian Bar Association and the General Counsel Roundtable.

Most recently, Mr. Bateman was vice-president of Legal Affairs at ENMAX Corporation. In this capacity, he was responsible for legal services, environmental affairs and compliance and information management. Mr. Bateman has also acted as interim Regulatory Department head where he reviewed transmission and distribution applications, refilings and implementation of Alberta Energy Utility Board decisions.

Mr. Bateman has extensive experience acting as senior legal counsel for a variety of organizations including a corporate commercial practice firm, investment group and technology companies.

STRATER CROWFOOT

Mr. Crowfoot holds a Bachelor of Science degree and a Master of Business Administration degree from Brigham Young University.

Mr. Crowfoot has extensive experience working with First Nations peoples in Canada. He has served as Deputy Chairman and Chairman of the Indian Taxation Advisory Board (ITAB). Mr. Crowfoot has worked to support the development of its policies, procedures and regulations. In his role as Chairman of the ITAB, his work included advising federal ministers on general tax policy, developing relationships with rate payers and their associates and directing complaint resolution.

For ten years, Mr. Crowfoot served as Head Chief of the Siksika Nation. He has also served as executive director of Indian Oil and Gas Canada.









ROLAND GEORGE

Mr. George holds a Bachelor of Science degree in Mathematics and Computer Science from McGill University, a Master's degree in Economics from Carleton University and a Master of Business Administration degree from École des Hautes Études Commerciales in Montreal.

Mr. George worked primarily in the private energy sector for 25 years. Most recently, he was senior principal at Purvin & Gertz, an international energy consulting firm. There he led the North American natural gas practice. Mr. George has also held positions with the Canadian Energy Research Institute, Gaz Métropolitain, Téléglobe Canada and Canadian Pacific Limited.

Mr. George chairs the National Energy Board's Regulatory Policy Committee and is a member of CAMPUT's Regulatory Affairs Committee.



GEORGETTE HABIB

Ms. Habib holds a Bachelor's degree in Mathematics from the American University of Beirut and a Master's degree in Economics from the University of Alberta.

Before joining the NEB, Ms. Habib spent 24 years with the Alberta Energy & Utilities Board, most recently as Manager of the Economics Group. During her time with the EUB, Ms. Habib acted as a panel member at public hearings and provided expertise and advice to the Board on regulatory and policy issues. Ms. Habib has also lectured in micro and macroeconomics at the University of Calgary.

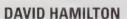
TEMPORARY MEMBERS

KENNETH VOLLMAN

A native of Saskatchewan, Mr. Vollman has a Master's degree in Mechanical Engineering from the University of Saskatchewan and is a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

Mr. Vollman has spent his career working in the energy sector gaining his practical experience with oil and gas production while working in the private sector. After joining the NEB in 1973, Mr. Vollman gained experience in energy supply and demand, pipelines, energy regulatory issues and management. In 1998, he was designated as Chair after serving as a Member and Vice-Chair.

Over the past four decades, Mr. Vollman has authored and presented numerous papers at Canadian and international conferences. He retired as Chair of the NEB on 2 June 2007 and was appointed a Temporary Member of the NEB on 27 June 2007 for a term of two years. As a Temporary Member, Mr. Vollman will continue to chair the Mackenzie Gas Project Panel.



Originally from Scotland, Mr. Hamilton has a Master's degree in Leadership and Training from Royal Roads University, Victoria, British Columbia. Mr. Hamilton has more than 30 years of experience working in the Northwest Territories in the development of people and communities through both parliamentary and democratic processes.

Mr. Hamilton was Deputy Minister and Clerk of the Legislative Assembly of the Northwest Territories for 20 years. He also held the appointment as Chief Electoral Officer for the Northwest Territories. Mr. Hamilton administered the first general election for Members to the Legislative Assembly in, Nunavut and the Northwest Territories, following the division of the NWT in 1999. Mr. Hamilton participated in the ratification votes for the Gwich'in Land Claim Agreement, the Sahtu Settlement Agreement and the Inuit Land Claim Settlement.







- National Energy Board Emergency Management Specialist Shane Richardson

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 6 National Energy Board Environmental Specialist Marc Pauze
 8 National Energy board Operations Technical Specialist Richard Turner
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- National Energy Board Environmental Specialist Pamela Romanchuk
 - National Energy Board Environmental Specialist Marc Pauzé
- Masterfile
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- National Energy Board Environmental Specialist Marc Paura National Energy Board Security Management Specialist Jamie Kereliuk Masterfile
- Masterfile
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In Memoriam

Remembering our liftend and collengue Ann Shalla, who passed away suddenly Anni riedicated mane than 25 years to the National Energy Board Library Where she worked as a province classifier and catalogues, Annikow the collection by heart, call number and all. In fact, she could after take you in any item you were lableng for Anni was a true believer in learning, a lifelong lover of books, strates amployed and according. She will be removed.





The NEB is an active, effective and knowledgeable PARTNER IN THE RESPONSIBLE DEVELOPMENT of Canada's energy sector for the benefit of Canadians.









